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THE MOTION PICTURE CAMERA MAGAZINE

VOL. 24

JUNE, 1943

NO. 6

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The Front Cover

This month's cover shows Harry Wold, A.S.C. (to right of camera, wearing hat), shooting a reverse-angle "reaction shot" while Gypsy Rose Lee does her "Star and Garter" strip-tease for Sol Lesser's "Stage-Door Canteen." Note "Gags" used to shield camera from lamps, and "barn door" on the baby leg at right.



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Hints On Outdoor Camerawork For Army Combat And Training Films

By RUSSELL HARLAN, A. S. C.

AT AN A.S.C. meeting the other night the Editor misinterpreted me into a corner and waved this editorial black-jack at me. "Rams," he said, "We get a lot of letters from Army cameramen asking us advice about camerawork in the field. Now you've shot close to fifty of Harry Sherron's 'Boys and Candy' Westerns, and a number of Army Training Film's bandits, so why don't you sit down and give the boys some of the benefit of your experience in exterior camerawork?"

Well, I don't know just how much "benefit" there is to be gained from anything I might say on the subject, for shooting studio exterior—even in Westerns—is quite a different matter from shooting an Army Training Film, and even more different from combat camerawork under fire. In an entertainment picture, your camerawork has to center on the story and the players. In a training film, the "star" of your production is the gun, or tank, or hand-grenade the use of which film is supposed to teach. In a combat film, as I understand it, your main job is to get an accurate photographic record of what happens and how and where. And of course in making studio exterior, we have the advantage of being able to control our photographic effects a lot with reflectors, bounce-lights, screens, and so on.

But I suppose that Bill is right, for there are certain basic fundamentals that all three types of exterior camerawork have in common.

One of the first of these is one I haven't been stressed near often enough in any discussion of either dramatic or military camerawork. It is the necessity of absolute simplicity in your camerawork. Whether you're trying to "sell" a story, a piece of necessary military information, or an actual battle, any photographic trickery that calls attention to itself—and so diverts at-

tention from the main purpose of the picture—is bad.

Filming is one of those tricks that is best forgotten except in very unusual instances. Whether you're shooting Bill Reid and his pals galloping across the foothills of Mt. Whitney, or the precise operation of unlimbering a 155-mm. gun, or even "for keeps" action in Africa or New Guinea, you want the screen you put on the screen to look real, and the action to be clearly distinguishable.

And one of the easiest ways to "mess up" an exterior scene is to try and improve on it by using a filter. Ninety-nine times out of a hundred you'll make it worse, instead of better—and the handkerchief time is open to question, too.

First of all, you see, a filter tends to distort the color-rendering of whatever you're photographing. This may not be so objectionable in an entertainment picture if it is only a mild distortion, but in a picture for any selling purposes it's murderous. For example, suppose you're shooting a training film with soldiers in warmer khaki uniforms. Suppose you use a yellow-orange filter like the G or the 2L, or a red filter. You're going to make these already light tan uniforms whiter yet like a freshly-laudered Navy "whites." And unless the background has been camera-burned to almost exactly the same shade of tan, your filtering is going to make these soldiers stand out in front of it much more prominently than they actually do to the eye. If the background is normal grayness, they'll stand out as prominently as so many snowballs in a coal-scuffle.

In the same way if you're shooting men in camouflage uniforms like those the Marine Raiders and similar units wear, any filtering will give an undue rendition of the coloring of their camouflage and its relation to the background. By careless filtering you can give an absolutely erroneous impression of the

Left: The author at work at location. Here use of reflectors to control lighting and thereby make conditions in nature picture. Right: Cameraman in military combat and training film action have a choice to employ such studio techniques as reflectors. But also that in a shot like this the use of filters would distort color rendition of camouflage. "Rams" editors.

way a camouflaged soldier or a camouflaged gun-position blends or does not blend with its surroundings. Either way you're off the beam, for the staff officers who study such films want to know precisely how things are, rather than what you can throw or conceal with photographic phlegmatics.

Moreover, most filters—even gelatin ones—tend to make the image softer optically. In plainer words, they cut down definition—when definition is one of the prime requisites of most outdoor photography, whether it's in Westerns, or in military films of any kind. In either case, the people who will see the films are more interested in knowing exactly what is happening than in how "arty" a cameraman you may be.

Of course there are always exceptions which prove the rule. In shooting exterior night-effects for studio films, or in some types of reconnaissance and mapping photography where you have to prearrange time to accomplish your end, you may have to use filters, and sometimes infra-red film. But in that case your distortion of color rendition is done deliberately, and you can expect the folks who study your pictures to understand that, and make allowances for it.

But otherwise, my sincere advice to the military cameraman would be to forget that filters were ever invented, and do all his work without them. In that, I've really expert confirmation in a comment made to me recently by the A.S.C.'s newest Honorary Member, Lt. Col. David MacDonald, of the British Army Film and Photo Unit, who told us that very early in the game out there in the African Desert he found what a hand-cam filters could be to battle camerawork, and issued an order to all his men to throw away their filters!

Next comes the question of exposure. This has to be right on the beam, not only to get the best print out of your negative, but to get the most accurate total value and the best definition. Now exposure has to be based to the normal processing of the laboratory that handles your negative, so I'd say that the first thing would be to find out what that is, and then, if necessary correct all your exposure and meter film speed settings to conform to it.

Some professionals like to read their



Above: A shot where your exposure meter can feel you when you make it read on the area most important to your picture. *Exposure:* Note careful use of exposure meter; reading would be much more accurate if the meter was shaded from sun and scattered light by your hands. *Right:* Camera makes an important move here; upper picture, with hands approaching, shows much more detail than lower picture where they are moving in opposite direction and half hidden by out-of-focus.

exposure by the illumination on the ground glass of the camera—assuming, of course, that it's a studio-type camera that has a ground glass. But with today's fast films, that's a pretty deceptive thing, as several of us have found out to our sorrow at one time or another, as the really safest thing is to use a meter. I don't much care what kind, so long as it is accurate and dependable, and you really know how to use it.

And let me tell you, there is a definite trick to using a meter properly. With a reflected-light meter like the Weston and most others, there's a lot more to taking a meter-reading than just standing up and pointing it in the general direction of your subject. Doing it that way, you can not only get miles off the beam, but you can kid the meter into giving almost any reading you think is right!

Perhaps the biggest margin for error in the way most people take meter-readings outdoors is that if you just hold the meter and point it at your subject, the meter is not only likely to "see" a different area from what your camera is covering, but in particular to "see" much more sky than your lens takes in. That sky is pretty highly reflective, and even if the meter reads only on the actual sky-area of your shot, that excess light is likely to boost your reading higher than the correct exposure for the part of the shot in which you're really interested.

The first step in getting around this is to make it a practice always to point the meter downward—at about a 30° angle—so that you deliberately include more of the usually darker foreground, and less of the sky. This in itself will give you more consistently accurate meter-readings.

But there's another step, a little trick that makes the reading even more effective, and about which surprisingly few, even of the professionals, know. Most photographers know that to get really good pictures, unclouded by the scattered light from all around the subject-area, and which does not play any part in making the actual picture, you've got to have a good, tight sunshade on your lens.

The same thing applies to exposure-meters, too. The same scattered light reflected from outside the picture field—from the sky, and from almost every object to one side and the other of your actual field—kicks into the meter's photocell and naturally tends to boost your reading. If you want a really accurate reading, you'll have to shield your meter's "eye" from this unwanted light.

The simplest way I've found is to make it a habit when taking meter-readings to fold your hands over the meter so that the palms of the hands, projecting at each side, and the fingers, at the top, make a little sunshade for your meter. I've known of a few people who have even made neat little matte-boxes for their meters, and when you use a studio camera, you can often place the meter's cell directly behind the camera's matte-box, and use that for a sunshade for your meter. The rear opening on the wider-angled lenses (from 18mm. down to 28mm.) is usually almost exactly the size of the "eye" of a Weston meter, so if you use a camera like that, there's a useful tip. But—you always have your hands, and I've found that little trick of using your palms and fingers for a sunshade is usually quite enough in most cases to give a perfectly accurate reading.

It's a good thing to remember, too, that by manipulating the meter-setting, you can place the exposure on any desired portion of your film's characteristic curve. If you want to favor the shadows—and especially in shots where for any reason (including bullets) you can't get in to take an actual reading on those shadows—you can do so by simply using a film-speed one, two, or even three or more points slower than you'd use under normal circumstances. Just how much slower a setting to use will depend on the density of the shadows, and particularly on what proportion of the total picture-area they cover. In general, if the action you're interested in occurs in the shadows, you won't go wrong exposing by the old photographic formula of "expose for the shadows, and the highlights will take care of themselves." I've made pictures among California's "big trees"—the Sequoias and Redwoods—and I've found nobody comprehended it, when the action was mainly in the heavy shade under those trees, I exposed for that and let the sunlit part "burn up" if I had to. I suppose it's the same shooting Army films in the jungles of New Guinea.

I've often been asked about the matter of controlling exposure where you have some very "hot" highlight extremes, as on a brilliantly sunlit, sandy desert, or at the beach, and so on, where your normal exposure-reading is likely to be close to the top of the meter's scale, and probably at or below the smallest stop on your lens. Some people advocate using Neutral Density filters to control exposures in such conditions, but personally, I shiver clear of the Neutrals, for while they do cut down the exposure, they also tend to flatten out your picture. And as a rule, you don't want any flattening when you're striving for the best and crispest definition.

Instead, I prefer to cut the aperture of my shutter. This is possible with studio-type cameras, though not with Eyemo and DeVue hand-cameras, and it can be done all right in films if you're using a Cine-Kodak Speed or a Bolex, both of which have adjustable shutters.

And speaking of films... which because of its compactness and the very surprising results you can now get enlarging 16mm. Kodachrome to 35mm. in either black-and-white or Technicolor, seems to be coming more and more into use for amateur camerawork, most of the things I've said about 35mm. black-and-white apply just as well to 16mm. and Kodachrome. Exposure, for instance, has to be right on the old button if you want the best results in color-reproduction and definition. There's no exception, though if you know your Kodachrome is to be used as an original only, give the correct, "rule-book" exposure; if you know it is going to be duped or enlarged to 35mm., it's a good idea to give an exposure (outdoors) based on a speed of Weston 6 or even 11, to soften the contrasts and get better into the shadows, so that those will

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Russia's Newsreel Cameramen At The Front

By ROMAN KARMEN

FOR a number of years Soviet newsreel cameramen had been accustomed to film the peaceful life of our country. Documentary film and Soviet newsreel mirrored the onward march, the happy life, the constructive and joyful labour of millions of people.

But there came the day when Hitler flung his divisions against our towns and villages. Upon the country and the people that was giving an example of the actual realization of the great march of humanity toward democracy and social justice, there descended the full force of the Hitlerite hordes. And the Soviet people entered into battle—everyone to the last man rose up to wage a sacred patriotic war. We took upon ourselves the brunt of the blow. And for the first time in the present war the march of Hitler's hordes across the territories of the countries of Europe was halted—by the Red Army. And on the very day of the outbreak of the war, newsreel cameramen left for the front.

Today, when eighteen months of war are behind us, we can sum up certain results of our front line work. Scores of thousands of feet of film have been taken. Each of us has run great risks and been not infrequently beaten, trench-mortared and shelled by the Germans. Many of our cameramen have perished at their post, camera in hand, and many have been wounded, returning to active work immediately on recovery. Dugging into the earth they have been subjected to fierce enemy bombardment, together with plucky sharpshooters they have lain in wait for the enemy, suffering trials and hardships. We have all grown unused to the feel of civilian clothes and have learned to appreciate the supreme law of the soldier's front line comradeship, which is "Help one another."

Cameraman Pechal charged into the attack side by side with his Red Army comrades, rifle and grenade in hand. The detachment broke through the encirclement. In this action Pechal died a hero's death.

Another cameraman, Slavin, was twice wounded and twice came back to the front immediately he recovered.

Cameraman Boris Sher spent ten weeks with a guerrilla detachment that wrought panic among the Germans in an unwarmed district near the Volga Hills.

When he had amassed sufficient material covering the activity of this detachment and planned to make his way back across the enemy lines, the guerrillas did not want to part with this plucky young man. They had come to consider him as belonging to their ranks and he had won their strong affection—the affection of grim and courageous men who look death in the face every minute of the day. The guerrillas sent a letter to the studio from which we learned much in regard to which our comrades had modestly kept silent. They wrote that Boris Sher had participated in several daring and dangerous operations as a guerrilla trooper. At night time when filming was impossible he would take up a rifle and accompany the detachment into battle. Boris Sher, like many another front-line cameraman, now wears the Order of the Red Banner and continues his newsreel work.

Cameraman Mark Tretyakovsky was among the last batch of Red Army men to leave Odessa—that same Mark Tretyakovsky who accompanied Papernin on his flight to the North Pole. (His film was shown in England under the title *Conquerors of the North*.) Tretyakovsky filmed scenes of the heroic defense of Odessa and the exploits of its defenders.

Till the very last hour Cameraman Vladimir Mikosha stuck to his post filming the glorious defense of Sevastopol, which will go down in history as one of the most heroic pages in the struggle of progressive mankind against bloody Hitlerism. In the last days of the defense of Sevastopol, Mikosha was badly shell-shocked but he kept on working.

The work of the cameramen filming in besieged Leningrad deserves special mention. Cameramen Uchitel, Pomen, Strizhin and others did not cease filming for a minute. In rigorous frosts, under fierce bombing, and incessant shelling, under conditions of blockade and hunger, they created for future history truly priceless cine documents of the life and struggle of the hero-city. Like all Leningradites, the cameramen received a message rather of bravado, they were unarmored and could hardly walk, but each day they plodded to the city carrying heavy tons of film and kept constantly taking shots. We are grateful to them for having preserved for us the marvellous features of proud, indefatigable and plucky Leningrad, for having perpetuated the unforgettable scenes of the winter of 1941-42. They filmed in the factories, on the streets and in the advanced front lines. The episodes they filmed now show the whole world what the Soviet people are capable of, cherishing deep faith in their victory and profound hatred of the enemy, and, in the name of this faith

and hatred, ready for all privations and exploits.

At Stalingrad, too, cameramen worked during the fierce battles when the glorious city's defenders sealed the German divisions, and where, for every foot, for every inch of soil, Hitler paid with the lives of thousands of his soldiers. Stalingrad will shortly be shown in Britain.

Our Day of the Soviet War depicts an ordinary day in this country which at the call of their great leader, Stalin, the whole Soviet people have turned into one mighty war camp. That day, from sunrise to sunset, 160 cameramen filmed numerous episodes both at the front and in the interior. This film has recently been shown in Britain, and in America through "The March of Time."

Soviet film workers engaged at the front know that each foot of film taken in battle is of historical value. It will afford an edifying narrative for future generations. Humanity's future is being won in today's battle, let our descendants know the great cost of their happiness, which is today being won for them by the Red Army men defending Stalingrad, by the Caucasus of the Kuban, Terek and Don, by the sailors of the Baltic.

We have seen some splendid pictures made by gallant English cameramen, filming battles in the air, in the Libyan desert and on the Atlantic Ocean, we have seen newsreels about brave R.A.F. men making death-doing raids deep behind the enemy's lines. We applauded the work of the heroic cameraman, Tom Tassner, who filmed the Malta convoy. A while ago we saw a new newsreel about Malta and admired the skill and gallantry of the cameramen filming the plucky fight of the island's residents, A.A. men, R.A.F. men and sailors.

We Soviet cameramen are proud that in those grim days we wear trench-muddied military uniform. And on behalf of all Soviet newsreel cameramen, in giving greetings to our British and American colleagues, I should like to say with all my heart: "Friends! It is with blood and tears, children, brothers, fathers and mothers that the Soviet people pays for your having not yet suffered all the horrors of an enemy invasion of your country. But heeding lessons of world domination, man-eating Hitler also wants his killers and murderers to lay their bloody trail of rapine and cordage across your country too."

About 260 cameramen work in various sectors of our front. A further 1,000 directors, assistants, editors, laboratory workers, cutters are engaged in producing newsreel issues that appear

(Continued on Page 232)

*This account of the heroic work of Russian newsreel cameramen at the front comes to us through the medium of "The Cine Technician," the official organ of Britain's Association of Cine Technicians. The author, Roman Karmen, is a cameraman and cameraman who shared the Stalin Art Prize for his part in making "Our Day of the Soviet War" and "Moscow Stricken Back." He has been one of the cameramen in "Leningrad Nights." Before the war he and his camera served in Madrid (1936) and Odessa (1937) and in the Arctic Circle (1938). After the war he was the only one of the last Soviet artists from Leningrad, also also called as a war correspondent for "Pravda," at home and abroad. E2



Shooting The War In New Guinea

An Interview With FRANK PRIST

By WILMA MADDEN

MAKING pictures in the South Pacific theater of war is certainly a hazardous and difficult proposition, but it's all in a day's work, according to Frank Prist, and he should know. Frank is one of *Acme Newspictures* war photographers and the first American civilian to return after our soldiers took over the major role in pushing the Japanese across the mountains and jungles of New Guinea and down to the sea at Buna.

Bored, blue-eyed and seemingly agitated in his War Correspondent's Army officer's uniform, Frank spoke cheerfully of dirt, discomfort and danger.

Bullets whizzed! There were near misses. Trees through jungle swamps where the going was so hard, and time so limited, that there was little time for rest, and none for sleep.

I turned to Mrs. Prist. "It must be hard for you to realize these awful things really happened to Frank. I can hardly believe such things take place even with the war news."

Frank answered for her. "I know how it must sound to you, because although I was in the thick of it just a short time ago, even to me, it seems like a crazy kind of nightmare. Everything is so much the same here at home. Seems hard to believe it's still going on down there."

Frank spent eleven months "down under." Seven months of the time he was stationed at Port Moresby, New Guinea. From this base he made many trips overland on foot, by canoe, and plane to obtain his pictures. More than three weeks were spent in the front lines when the "Battle for Buna" was at its peak.

The enemy bombed Port Moresby constantly. Many of the 800 houses which comprise the city were wrecked during the bombing runs, which added to the sense of desolation surrounding the evacuated town. Port Moresby was the springboard for our successful drive on the Japanese, and many thousands of

American and Australian boys who arrived at this little port will never forget it.

Among them is the little company of writers and photographers who keep us informed on the progress of the war. Frank Prist made the photographs of Vern Haggard when General MacArthur presented him with the Silver Star for bravery. Vern, an Associated Press correspondent who once covered Hollywood, landed out of a damaged plane, and spent forty-two terrible days in the jungle.

"The morale of our soldiers is magnificent! The war correspondents stacked up pretty well, too. Every man's a hero down there, though they'd hate to admit it. Sometimes after hours in a slit trench, or when dreaming over Mother's cooking, there was a little good-natured griping, but that seemed to be mostly for the fun of thinking up wackies."

When at the front a correspondent must carry along the full equipment of a soldier—except for weapons—as well as his photographic equipment. Soldier equipment consists of half a shelter tent, mosquito netting, blanket, toilet articles, water canteen, and "C rations."

Frank said they saved "C rations"—which consist of tinned pork and beans,

vegetable, meat and hash,—for special occasions, usually eating the front-line rations of bully beef and hard-tack.

Every two or three months Frank would fly back to Australia, on business. When on these trips he enjoyed the clearly comfort of the "War Correspondents Convalescent Home."

This establishment was maintained by all the war correspondents from the States. The boys rented a beautiful home in the suburbs of Melbourne, hired a cook, and painted a large sign in the show window. Every correspondent or visitor of their profession was given a pair of crutches and photographed by the sign, but the boys were afraid to send these pictures home for fear friends and relatives wouldn't believe they were only joking. A few days at the "Home" was something to look forward to during the hard days at the front.

Frank was enthusiastic over the cooperative spirit evidenced by all men at the front.

"Shooting the pictures was not as much of a problem. There is no red tape at the front, and every one is ready to cooperate from back private to high-ranking officers. Weather conditions, and lack of equipment for processing presented the major difficulties."

The war photographer is his own boss. He decides what to shoot, and writes his own captions. Frank organized many of his shots so as to make a picture story of war operations.

"We sailed Feb. 17, 1942. I made pictures of the convoy as the way down. These were processed in Australia. When we arrived I made a great many pictures of General MacArthur, his family, and many other pictures of the Army personnel. This was interesting work. These pictures were also processed in Melbourne."

"At Darwin my troubles began. Film could not be processed for several reasons. The Army's supply of chemicals had been ruined by the bombings, and

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At top of page, left: Newspaper Photo's quarters in New Guinea. Center: Field Laboratories in a friendly Japanese camp. Right: Shooting native babies with a camera. Above: General MacArthur. Below: Frank Prist with wireless battery and bag which was no longer of use to him. Original Joe White.



Unseen Camera-Aces

I:

Maximilian Fabian, A.S.C.

By WALTER BLANCHARD

Some of Hollywood's finest cinematographers are virtually unknown to the world at large . . . sometimes even to people in the industry, but not associated with the same studios. In some instances, they may perhaps receive screen credit under some appellation as vague as cascade rather than reveal their contribution to the picture. In others, they work anonymously, with never a line on the screen to direct credit toward a job well done. And they are almost never published, for the studio chiefs have the opinion that to do so would disillusion the public—as if that could be done in this universally camera-saturated age.

Yet without these men and their quiet contributions to production, motion production would be impossible. It is with great pride, therefore, that we commence what we hope will be a lengthy series of articles on the screen's unseen heroes—the special effects cinematographers. THE EDITOR

IF YOU met him at the Camera Table of the MGM Commemorative, you would hardly notice him if he weren't perched on the rearview end of friendly ribbing from his fellow-cinematographers, (which, by the way, he quietly enjoys) this shy little man with the greying hair and the sensitive face of an

infant. If you were a stranger, and introductions were in order, you would respond at once to such other names as Joe Ruttenberg, Bob Plank, George Folsey, Len Smith, and the others. But when your host introduced Maximilian Fabian, A.S.C., your mental reaction would be the equivalent of a blank stare,

for it has been something over eighteen years since he received screen credit.

Yet without his patient, tireless efforts many of MGM's biggest and finest productions could never have reached the screen. Remember that memorable scene in "Mis Hombres"—so many minds the emotional climax of the whole film—in which that hairy little fleet of motorboats assembled by night along sleepy British rivers to plough fearlessly into the Hell which was Dunkirk, to react to an arrow?—? His camera made it possible. Do you remember those thrilling scenes of naval battle in "Stand By For Action," which made the rest of the film endurable?—? They came to the screen through his skill and patience. Do you remember that memorable scene of the interminable lines of trucks carrying soldiers in a World War I front in "The Big Parade" eighteen years ago?—? His camera did it! Do you remember the earthquake in "San Francisco"?—? It came to you through his lens and lighting!

For Max Fabian is a specialist in that most difficult of arts—photographing disasters, and doing it so that even the camera-winded in the audience are unaware that they're not looking at the real thing. Perhaps the finest tribute he has ever received was when a gold-braded admiral in Washington remarked, after seeing "Stand By For Action," that he hadn't realized the West Coast Naval Forces had enough strength to spare from wartime duties to cooperate so fully with the motion picture industry. Those destroyers and battleships—the entire convoy, for that matter—were minutely manipulated before Max's magic camera.

He didn't start out with the deliberate intention of becoming a miniature specialist. His first film job was, in fact as far removed as possible from truck-camera-work, for he began as a projectionist in the old Gaumet Theatre in Los Angeles, some twenty-five years ago. But as he peered through his little peephole to watch the pictures unwind on the screen, some latent artistic instinct told this young Polish boy that he would get into a position where he, too, could create such visual beauty.

Inquiry told him that the stepping-stone to camerawork in those days was through the laboratory. So he got a job in the old Pacific Laboratory, and learned photography from the wet end. He learned quickly, too, for before long he was considered qualified to go out on a camera, and rose quickly to the position of First Cameraman. That was long before today's era of strict specialization, but he became what we would consider an ace production cameraman, photographing for John M. Stahl and other top-ranking directors of the day, and working for Fox, Metro, and others of the best studios of two decades ago.

Between pictures one day at Metro, he received a sudden call to go to one of the stages to attend to a little job that had to be done. When he got there, he found it was the task of photographing a

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Left and center: Two of art director Roland Anderson's preliminary arrangements for "The Story of Dr. Wassell." You will see these scenes in the picture as they were arranged before the sets were built. Right: actual shooting in the exact spot, across the author (left) and Carol De Mille, as they line up for a well-prepared take.

Preparation Pays A Profit

By VICTOR MILNER, A.S.C.

FOR years a comparatively small group of us within the industry have been arguing that a system of more completely detailed preparation not only of scripts, but of all the physical details of production, in which the director of photography, the special-effects specialists, the art director, costumeurs, and others could work closely with the director and producer before actual production starts, would give us not only better pictures, but much more efficient production. The majority of the industry, however—including most directors and producers—have taken what they like to term the "practical" viewpoint that such a system would be too Utopian to be practical, and that the potential economies, anyway, were vastly overrated.

Yet at the same time, these "practical" men of production have wondered how it was that Carol De Mille could turn out the big, spectacular productions he does, and so economically. They've wondered even more how he could bring those productions in so consistently ahead of schedule, and often below budget, so well.

The answer is that De Mille adheres to the full that same principle of exhaustive, cooperative pre-production planning which the "practical" men of the industry dismiss as visionary. He realizes that the really heavy costs of production are incurred early during the period of actual shooting. During this period, any loose planning or lack of coordination between the members of his key production staff will be reflected in mistakes and delays on the set. And with modern production costs mounting up at the rate of from \$10,000 to \$20,000 or more per shooting day, an avoidable delay of even a few minutes is prohibitively costly.

Therefore De Mille prepares for each production as meticulously as a good general would prepare for the opening of a new front. He and his production staff—the director of photography, the art director, the costumeurs, the first assistant director, the special effects experts, and others—literally live with the picture for months before the camera turns on

the first take. Once the picture goes actually into production, everyone concerned knows precisely what each scene and set-up is and—equally important—just where, where and how each is to be filmed.

For this reason there is almost no last motion on a De Mille set, and virtually every inch of film included in the OK'd takes goes into the final cut of the picture. There are no retakes. In one year's association with Mr. De Mille, I saw no member retaking only a single scene.

With such coordinated staff-work there should be less surprise that his productions are brought to completion so quickly and economically. To raise only two recent instances, "North West Mounted" was finished a full 14 days under schedule, and "Ramp the Wild Wind," for all its technical difficulties, 12 days ahead of time. With a little figuring you'll see that this in itself resulted in a direct saving of something in the neighborhood of a quarter of a million dollars on each production. To this add the additional savings brought about by the fact that the surplus scenes, "production-shots," and the like usually considered as part of the inevitable wastage of normal production are never made for a De Mille production. The sets for them are never built, the players never engaged, the shooting time and effort never expended, for they have been eliminated from the script weeks or months before shooting started.

As a specific example of how this method of pre-production planning works, let's consider the case history to date of De Mille's forthcoming production, "The Story of Dr. Wassell." It's scheduled to go before the camera about June 1934; but the script-writers started their work as late last July. As was as the first draft of the script began to jell—some time in August—De Mille's assistant, Eddie Salzer, started his phase of the planning. In September, art director Roland Anderson, costume-designer Natalie Yumst, and I, as director of photography, joined the staff conference on the picture. Transparency expert Farrot

Edwards, A.S.C., special-effects specialist Gordon Jennings, A.S.C., and Camera Department Chief C. Roy Ratten were not far behind us.

For the seven months since September, then, we have all participated in the many budget and story conferences which are such important parts of the business of getting a big picture ready for production. At many of these meetings, nothing directly affecting one's own phase of production may come up . . . but when such questions do arise—and sometimes they do with unexpected suddenness—De Mille wants to get an authoritative answer to it immediately.

In this connection, I'd like to mention for the benefit of those who do not know Carol De Mille, that in spite of all the publicity about his being constantly surrounded by "yes-men," he will accept a well-founded "no" better than many another producer or director. But you must be prepared to back it up with cold facts if you do, he will defer to your judgment. But was before the man who gives him a "yes" for politeness when the answer really should be "no" always means pre-taken refuge in an evasive "maybe." Public answers like that bofoondard are usually freeurrences of unnecessary mistakes and delays on the set. And these can't be tolerated, especially with production costs increased over 100% in the last year.

As the story and its treatment begin to solidify, several things begin to happen simultaneously. The first of these is research—especially on the part of Salzer, art director Anderson, costume designer Yumst, and the studio's research staff. De Mille has always been a stickler for absolute technical accuracy in his pictures, and this is no exception. All concerned have delved deeply into everything available concerning the locations (China and Java) of the historical events, the picture chronicles, and into the events themselves. In addition to the personal collaboration of Commander Wassell himself, every conceivable source of printed reference material, including eyewitness accounts and innumerable photographs, have been consulted. As many individuals who partici-

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Aces of the Camera XXIX:

Sol Polito, A. S. C.

By WALTER BLANCHARD

THE TERM "Director of Photography" owes its origin to no small part to Sol Polito, A.S.C., for it was he who, back in the early-Vitaphone days of sound-film, convinced the executives of Warner Bros.' studio that the cinematographer is charge of photographing a picture could be more valuable in a supervising or directional capacity that he could while actually operating his own camera.

"Back in those days," he tells us, "the First Cinematographer ran a production actually operated his own camera. If there was such a thing as a Second Cameraman with the troupe, he was there simply to operate an additional camera.

"Then came sound—and in those early days they didn't think they could cut the sound-track as flexibly as they cut the picture film. This was particularly true at Warner Bros., where the sound was at first recorded on disc instead of film; but it stayed equally throughout the industry, regardless of the method of recording. In order to avoid having to cut the sound-track for disc record, in our case, we had to shoot every cut and angle of a whole sequence at one take. This meant using six or eight cameras, shooting from six or eight angles at once, getting close-ups, long-shots, medium-shots, and everything else simultaneously. And in those

days there were no camera blimps: the camera and its operator were locked together in a big soundproof booth about the size of a grocery-store refrigerator. There they stayed until the scene was shot.

"Planning lightings and compositions for six or eight cameras, shooting from so many different angles, was a real problem. Doing that really well, and at the same time operating one's own camera too, proved impossible. So finally I went to the front-office executives, explained my problem, and asked that I be relieved of the task of running my own camera, so that I could more efficiently direct the work of the crews manning the other cameras.

"My request was granted. In practice, it worked out so successfully that the idea spread quickly throughout the industry. And though in time we all of us learned to cut the sound and picture with the same facility we had known in silent-picture production, the idea of the Operative Cameraman and the Director of Photography held on, to the great benefit of cinematographers and cinematography."

Since that time, too, Polito has earned on as one of the foremost members of the camera profession. This year marks his thirtieth anniversary as a cinematographer. During the last fifteen years, he has been responsible for the camerawork of some of the industry's biggest and best productions. Every year since the inception of the Academy Awards he has had a picture placed high among the list of nominees for the Photography Award, and sometimes for the Color Award as well. He has pioneered in many important innovations and developments, including the making of big exterior scenes on an indoor stage (which, by the way, has saved his studio tens of thousands of dollars on many a picture), and in the development of the wave and ripple machine which made possible the filming of searage exteriors indoors, without the use of process-backdrops.

How did he get his start in the industry? Let him tell it: "My first job in the picture business was back in 1912, when I got a card as a duly licensed projectionist—I still have it, by the way—and with it a job guiding the projection in that now forgotten little Nickelodeon. And I do mean guiding: those were the days when the projectors, even in the most deluxe-equipped houses, were operated solely by hand power.

"It didn't take very long watching the pictures I guided through my projector to make me decide I wanted to become a cameraman, and create the pictures, rather than just run them. So I began to cast around to find a way to get into the production end of the business, and especially to find a way to learn all the things I knew I would have to learn before I could be a real cameraman.

"That opportunity came when I met Terry Gaudin, A.S.C., who was then the Chief Cameraman for Carl Laemmle's

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THROUGH the EDITOR'S FINDER

WHILE we were sitting in a newspaper camera department the other day, the phone rang. After several minutes of conversation, the camera chief turned to us and remarked, a bit wearily, "That was my opposite number at the so-and-so studio. The morning he called and asked if we could loan him four lenses he needed urgently. We loaned them to him, first having our shop check them carefully to make sure they'd fit any standard mount. Now he calls to tell us that though he uses the same kind of cameras we do, three out of the four lenses won't fit into his mounts. . . . and he swears his mounts are 'standard,' too. Why hasn't somebody set up real, industry-wide standards on these pieces of equipment we all use?"

This isn't an isolated occurrence. It happens almost every day, and in every studio, major and independent alike. It happens with every conceivable kind of photographic equipment and accessories.

Suppose one studio is at a production peak, and wants to borrow a camera from another where production is momentarily slack. The question immediately arises, will the camera from studio A fit into the Merga used by studio B? Assuming a blimp, too, is needed, will the blimp from one studio fit onto the tripod heads and dolly heads of the other? For that matter, would the borrowed camera and blimp combination meet the borrowing studio's standards for silent operation? We could pose several studies—even using the same sound system—where the answer would be a decided "No."

Then, even if all these hurdles were adequately cleared, there's the problem of driving motors. Chances are that the motor on the borrowed camera might not operate on the other lot; it might be the wrong type of motor . . . the current frequencies in the two plants might be different . . . or the systems of synchronizing, or power distribution. And having asked the question of availability of a spare motor in the second studio (which would be doubtful, at best, if all that studio's "product" cameras were tied up) it is very probable that a motor built to coordinate with studio number two's camera and sound or process synchronizing systems actually could not be physically applied to a camera from studio number one. We've known, too, of instances where a rented gamma projector had to undergo what amounted virtually to a major rebuild before it could be operated satisfactorily under the standards of another studio.

Before the war, this might not have been a matter of particular importance. As regards photographic equipment, most major studios, at least, were pretty well self-sufficient. There was some lending and renting of big camera-booms and similar unusual equipment, but for

basic equipment—cameras, lenses, motors and the like—most studios had enough and to spare, even for times of unusual peak production. If any emergency need rose, well, new equipment wasn't particularly hard to get, and the emergency might well serve as an excuse to add something lastingly useful and charge it to the production's budget, rather than the camera department's!

But those days are gone—"for duration." It would probably be letting a military secret out of the bag (even if we knew the exact figures—which we don't) to say just how many camera outfits and lenses Hollywood's studios have applied to the Armed Services. But it is a known fact that major studio camera equipment has been pared uncomfortably close to a bare minimum. And of course the purchase of new equipment is an impossibility for obvious reasons.

Therefore the borrowing and pooling of camera equipment between different major studios, and even between major and independent studios, has increased to an amazing extent. And we are finding out what industry-wide standardization for such equipment would be worth—if we had it.

Talking about rectifying this situation now may seem like suggesting locking the stable after the horse has been stolen . . . and so it is, if you are thinking about complete standardization of every detail, small and large. But it seems to us that a great deal can be done in this direction right now, in the studios' own camera machine-shops, through simply careworking and standardizing such many details as can be managed under today's conditions, and providing, of course, that the industry's camera, special-effects and sound experts can sit down together and face the questions realistically, without too much prejudice in favor of the individual studio or executive preferences which were the original cause of most of this lack of standardization.

And in view of present experience, isn't the thought of achieving real industry-wide standardization of photographic equipment a tempting one to put down as the kinder one "must" for post-war planning—?

HAVE you ever noticed—whether in a world-famous professional organization like the A.S.C., or in the smallest of amateur movie clubs—that it's the members who don't often bother to show up at meetings who put up the biggest howl about how little they're getting out of the organization, while those who pick in hardest to help make the meetings work seem to get the greatest pleasure out of their club's activities, and feel they're getting the most out of it—?

As we begin to get into the period when the various studios are announcing their production programs for the coming season, it's gratifying to note that there is a very general tendency among most of them toward producing fewer pictures, but slitting bigger budgets and presumably longer shooting schedules to those they do make. A paramount reason for this change is that while all pictures are making money today, productions given the extra time and money which makes them more than just ordinarily adequate ones can command sufficient additional playing time in the theatres so that a comparatively few genuine "A's" can earn a larger total profit than the conventional program of a few "A's" and a larger number of cheaper "B's."

A very important by-product of this policy—though one perhaps not immediately foreseen by the front-office executives—is that it should almost guarantee better photography on such pictures as are made. Very likely, as this policy begins to bite hard, executives in every studio will look at the rubus with the comment, "Mightn't What's got into that cameraman that he becomes a genius overnight?"

The answer will be simple. The longer schedule has simply given him an opportunity to do things he always knew how to do, but was never given time to put into practice. On the average "B-picture" schedule, which may range from ten days to three weeks, your cameraman has inevitably had to sacrifice quality to speed. With from twenty to fifty or more set-ups to be photographed each working day, he doesn't do anything else. If it's a choice between using unimaginative (but safe and quick) compositions or lightings, and taking the few extra minutes on each set-up necessary for getting a better composition—perhaps by juggling some props, or moving a wild wall, or changing to a different camera-position—or for polishing the lighting more carefully, adding a lamp here to cast a decorative shadow, or rearranging a couple of others to get a more perfect effect—he'll find himself forced to take the safe "B-picture" course.

But give that same man those few additional minutes per set-up represented by a few added days or a week or two in the schedule, and he'll delightfully make use of it to give his picture better photography. The benefit of those few minutes per set-up may not turn a Joe Deakes into a Gregg Toland—but you can bet your last dollar they'll improve his camerawork as much as though the producer had called in a cameraman whose salary was a couple of hundred dollars a week higher!

A.S.C. on Parade

A very special salute from all of us goes this month to Capt. Ray Farnstrom, U.S.A.C., first of the 21 A.S.C. members now in service to be wounded in action. We've just received two V-Mail letters from him which are well worth reading. The first, dated April 23rd (Good Friday) says, "Dear Bill and Fellow Members—Into the second year of Army life, and I'm really enjoying it. Test living is healthy and I eat like a wolf, for our food is really good. Great opportunities for movies, and I hope you'll see them all. I still have my old luck and am riding it hard. Yes, as you have noticed, I'm in the Air Corps now with wings, ribbon and double bars, which gives me a chance to use all my varied camera experience. I really feel 'on the beam' at last and am trying hard to do a good job of it. Drop in, Bill, on my brother Carl at Technicolor, and give my best to Dr. Kalman, Mrs. Kalman, Jerry, Rachelt, George Cave, Bob Riley and the boys. Say hello to Cleaver and all our old Hollywood pals. Drop me a line V-Mail As soon, Ray." The second letter, written three days later, reads, "Good Friday came along. I was busy as usual—in the air—good movies—and got them—over the German lines. But my left leg where the thigh muscle is the hardest and deepest caught a hunk of steel from one of their anti-aircraft shells that popped close enough for the lens but too close for my leg. So now it's time out for a week or so in a grand British field hospital, where we have fresh eggs for breakfast, tea at ten and four, and a ration of whiskey each evening. These British X rays and field stations, their immediate assistance with no after-effects, and their skilled, tireless surgeons positively astounded me. I can never live long enough to sing enough praise of the British I have learned to know well. Regards to all, Ray."

The sincerest sympathies of the A.S.C. and its members go out to James C. Van Trees, A.S.C., upon the death of his youngest son, Lt. Don Van Trees, who was killed in line of duty while serving with the Army.

Our sympathies, too, to Robert C. Bruce, A.S.C., on the recent passing of his wife.

Our best wishes, likewise, to Dan Clark, A.S.C., reported as convalescing satisfactorily from a recent operation.

At that last A.S.C. meeting—Archer Stout, A.S.C., happily back in town to stay after disposing of his tanganyika mare, and beaming over a visit from his son, Junior, on leave from Navy service.



Months ago, when Henry Frensch, A.S.C., had just entered the Marine Corps as a buck private, we asked him for a picture. Since then, Henry has been busy going through Officers' Training and getting out into active service. But the other day Henry's uncle, the dependable Roman Frensch, sent us this picture of Capt. Henry Frensch, A.S.C., U.S.M.C. As Henry puts it, he's gotten rid of that Stage 4 pallor, and loves the life of a leatherneck.

Nick Monahan, A.S.C., prides the effect-lighting assignment on RKO's chiller, "The Seventh Victim."

What well-known director of photography is so fond of gambling that he daily matches nickels with the waitresses at a very major studio canteenary to see whether or not he pays for his lunch? And what Marine Corps Captain took him for five bucks by the same route the other day?

Even in Washington THE AMERICAN CINEMATOGRAPHER and its staff are well known. A letter from Reed N. Haythorn, A.S.C., encloses an envelope addressed simply "Reed N. Haythorn, A.S.C., Staff Correspondent, AMERICAN CINEMATOGRAPHER, Washington, D. C." And it got to him all right! The envelope, he tells us, was a letter from Carl Pryor, A.S.C., who, it seems to us, is overdue for another article for these pages.

And over at Warner's, Sol Pabio, A.S.C., after Technicoloring the stage numbers for "This Is The Army," switches over to complete the story part of the pic, as well.



The other day United Artists Producer Harry Sherman held a big celebration over the starting of his 50th "Hogback Cassidy" western. Above you see Russell Harlan, A.S.C., expressing surprise on receiving a trophy for his outstanding work photographing all fifty of them.

Tony Goodie, A.S.C., as soon as he finishes "Corvette K-200" for Universal, moves over to RKO for "Revenge," their big Busman epic. Meanwhile, Vern Walker, A.S.C., burns to Utah to get snow scenes for the same pic while the snow is available.

WILLIAM C. MARSHALL, A.S.C.

We regret to have to chronicle the passing of another of the profession's pioneers, the well-known veteran William C. (Billy) Marshall, A.S.C., who died recently at the age of 88, after a long period of ill health.

Billy Marshall was a veteran of the industry, with innumerable notable achievements to his credit. He was one of the first, if not actually the first American cameraman employed by Pathé Freres when they opened their American studio in 1912. He photographed the first production made by the Fox Film Company, and was for more than a decade the ace cameraman for Adolph Zukor's Famous Players Company, later Famous Players-Lasky and now Paramount. During this period he photographed virtually all of the foremost stars of the early period, including Mary Pickford, Wallace Reid, and Rudolph Valentino, whose most famous picture, "The Sheik," Marshall photographed. During his many years of studio activity, Marshall not only lived through the period when cinematographic history was being made, but helped make a great deal of it himself.

During recent years, Marshall had been comparatively inactive professionally, due to injuries received in an automobile accident en route to location. But his friendship at A.S.C. meetings will be missed by all who knew him. The sincerest sympathy of the A.S.C. and its members goes out to his wife and friends.

PHOTOGRAPHY OF THE MONTH

PRELUDE TO WAR

Produced by the Special Service Division,
U. S. Army

Distributed by The Motion Picture Industry

This is the first of a series of "orientation" pictures being prepared by Col. Frank Capra, originally strictly for Army use, but now to be released theatrically to the American public. It should be a "must" on everyone's list, for it shows in unforgettable visual form just why we are at war.

The picture is made up almost entirely of authentic newsreel shots of the events leading up to the war, with a sparse sprinkling of staged inserts and close-ups to tie the action together. There are authentic shots of ten and twelve-year-old Axis youngsters engaging in military maneuvers with guns, gas masks and gas which alone are enough to make any sane-minded viewer burn to wipe totalitarianism from the earth. There are intimate shots of Hitler, of the clownish Mussolini, and the bleated Jap warlords which speak volumes about the kind of insanity our world is fighting against.

Technically, the picture is of surprisingly good newsreel quality, and the most significant job of editing this country has yet produced. Capra employs filmic rhythm to build emotional effects in a way we thought only the Russians, and a few Englishmen like Lt.-Col. MacDonald's British Army Film and Photo Unit, understood. It is by long odds America's most powerful documentary.

ACTION IN THE NORTH ATLANTIC

Warner Bros. Production

Director of Photography: Capt. Ted McCord, A.S.C., U.S.A.A.F.

Special effects cinematography by Edwin H. DuPar, A.S.C.

"Action in the North Atlantic" is one of the season's best war films, and a distinguished credit to those cinematographers publicly credited. They have achieved greatly. But "Action in the North Atlantic" neglects crediting the one man who really deserves the most credit for what is one of the outstanding cinematic achievements of the year. Hyman Banks, A.S.C., who served as virtually the uncredited producer-director-editor of the film's most spectacular portions. As head of the Special-effects Department, Banks personally directed and edited what we would estimate as roughly two-thirds of the production. From what we personally observed on the set and in the cutting-room, his work went far beyond conventional special-effects scenes he dealt with whole sequences, which included the principals and spectacular special-effects. These sequences make the picture—and in their direction, photography and editing reach

peaks far above the rest of the production. Put this down as one of the "must-see" pictures of the year.

LADY OF BURLESQUE

Hunt Stromberg production, United Artists Release.

Director of Photography: Robert de Grasse, A.S.C.

Opinions may differ as to the entertainment and dramatic merits of this murder-mystery in its back-stage setting, but there can be no doubt that Robert de Grasse, A.S.C., has given it a vitally interesting photographic mounting. Sometimes, perhaps, it may be felt that he slightly overplays his camera through his use of unusual angles and arresting compositions and lightings, but all told, his treatment of the picture makes it vibrantly unconventional. His treatment of the players is, as always, smoothly flattering, in spite of the crisp treatment and melodramatic lightings he employs. All told, "Lady of Burlesque" is a picture which should entitle him to an even firmer hold on his acknowledged place as one of the rising generation of masters of the camera.

FIVE GRAVES TO CAIRO

Paramount Production

Director of Photography: John F. Seitz, A.S.C.

This highly topical production marks another upward step on the path of cinematographer Seitz on his way back to the heights after several years of being bowed in unimportant pictures. It is, in its harshly realistic treatment, quite a departure from his usual pictorial style, but from start to finish you can see the hand of a master behind every scene and set-up. His camerawork and lightings are beautifully attuned to the moods of the action and, as we've remarked on other occasions, Seitz seems to have an inimitable technique for projecting topical heat visually, without ever seeming consciously to do so.

MISSION TO MOSCOW

Warner Bros. Production

Director of Photography: Bert Glennon, A.S.C.

Special effects cinematography by Hans F. Koenigsmark, A.S.C.

Thanks to its subject-matter, this is a picture everyone will want to see, regardless of how he stands in his opinion of Soviet Russia. To what degree the picture answers the average American's questions about Russia, only our readers in Russia can answer, but the documentary quality in the direction and general treatment of the production make it a notable departure in American entertainment films.

Photographically, "Mission to Moscow" is rather on the disappointing side

Almost wholly lacking—except in the newswall stock-shots generously interspersed with the dramatic scenes—was the documentary photographic quality needed to complete the air of authenticity imparted by Michael Curtiz' direction and the excellent writing and performances. In addition, Glennon repeatedly resorts to his characteristic trick in effect-lighting long-shots, of highlighting the middle distance and background, but putting just too much front-light on the foreground plane to let it be afforded, yet not nearly enough to be an honestly balanced filler-light in its relation to the background. The result is distressingly wacky-wacky—the more distressing because it seems to be the only weak touch in the otherwise forthright and vigorous treatment of the dramatic aspects of the production.

DU BARRY WAS A LADY

MGM production (Technicolor)

Director of Photography: Karl Freund, A.S.C.

This picture is what the publicists would call "gloriously Technicolored"—but why, we can't understand. In a few sequences—notably Gene Kelly's spectacular solo dance number, and the "Black Inn" sequence—Freund's Technicolor artistry is afforded real opportunity, and rises to the artistic heights of which he is capable. The bulk of the rest of the production he has had to handle in routine fashion, which he does well enough, though after viewing what his camera has recorded, we still wonder why so much good film was wasted on indifferent material—especially with film rationed as it is today.

CABIN IN THE SKY

MGM Production

Director of Photography: Sidney Wagner, A.S.C.

This is one of the best pictorial opportunities that Sid Wagner, A.S.C., has had in many a day, and he rises excellently to it. He creates that all-negro fantasy with excellent pictorial quality, and his personal lightings—particularly of Ethel Waters—add greatly to the dramatic values of the production. As entertainment, too, we found it enjoyable, though the musical aspects were a severe disappointment.

DR. GILLESPIE'S NEW ASSISTANT

MGM Production

Director of Photography: George Folsey, A.S.C.

Here's a little program production which is a gem of photographic pictorialism, as might be expected in anything from George Folsey's camera. We are strongly reassured it as a first-class study in decorative lighting, and in Folsey's facile interpretation of the film's varying dramatic needs.



Left: a well-attended joint meeting of the Philadelphia Camera Club (seating identification in front) and the Northern Camera Club. Right: the author who for five years planned the Philadelphia club programs.

Planning Club Programs

By FRANCIS M. HIRST*

Philadelphia Camera Club

WHY should we keep our movie club going; why not discontinue for the duration? It is difficult to obtain this, and if you are able to say it you can't use your car or take trips to make movies. Where are you going to get speakers? Where are you going to get people to put on interesting demonstrations or anything else to hold a club together?

"The surprise to hear a fellow like you say such things. Don't you know that movie clubs are a great booster of morale? Where else can one spend such a pleasant evening with as little effort? Don't you think it would be an awful let-down for any of the fellows to come home on leave and find the club doors closed? By the way, I don't recall having seen any of your films at the club. You must have come to show."

"Well, I guess I do have some from the last trip I took, but I don't go in for it as seriously as you fellows do. I only use my camera to make a record of my trip. My films are still on the reels that came back from the processing station. I don't have any titles and I don't bother to cut anything out. What was our trip—so why throw part of it away?"

"I can't say that I agree with you on that score. Why not bring your film to the next meeting of the club? We can view it and offer constructive criticism. We can go further than that. I will bring a speaker and, with your permission, we can start to edit right at the meeting. This will give everyone an opportunity to see how it is done, and that which we do not complete at the meeting, you can finish at home. We can also give suggestions for titles

which you can shoot and add to the film, and I think that you will be pleasantly surprised at the result. You see we have planned a complete meeting with very little effort."

It is not necessary to have guest speakers. Undoubtedly you have hidden talent among your own club members. How many times have you heard an argument between club members on the correct way to expose a film? Surely the man who can give a good argument is capable of expressing his ideas at some meeting. Pick at random any phase of movie-making, and undoubtedly someone in the club will be versed sufficiently on the subject to give a talk—and somebody else, equally expert, can disagree with him and build up a very instructive pro-and-con technical program.

I would like to bet that any club could start these talks right now and they would continue long after the war has ended. I could also guarantee that each talk would hold the interest of the members to such an extent that the meetings would increase in attendance. All this worry about guest speakers is needless.

Our club has held two quiz contests between eight and sixteen, and another would be as popular. It is surprising how easy it is to find interesting questions to ask. Have each member turn in a question for a contest. On the night of the meeting, ask for volunteers—about four from fans and four from fans. Make your own rules in advance and have someone act as quiz master. You will find that a lot of humor develops spontaneously, and everyone benefits by the knowledge gained and fun created. I suggest that 22 questions be used. This will give each contestant four questions to answer, taking in all from 30 to 45 minutes.

One of the most interesting problems of movie-making is titling. So few of us really get down to this minor part of the sport because of some little quirk in our nature that says it is too difficult, or that it takes too much time or even

that the train of thought doesn't run along that track.

Boosh! You need only to make the start to become fascinated with this part of the hobby. There are no set rules, for each film must be treated individually. Why not have three or four members who are adept at making titles collaborate and give a discussion at one of the meetings? Each could show his own film and explain how he went about making his titles.

One learns more quickly by doing rather than by seeing or hearing, so it would be well to have one or two titlers at the meeting. The opportunity of being able to assemble and shoot titles will overcome the chief obstacle in titling, namely, the start. When one is convinced of the ease and simplicity of this operation, better films will result. It may be arranged for those who have never made titles to bring their cameras to the meeting and shoot some.

At the present time our club is running a series of educational films, obtained from the Harmon Foundation, entitled "You Can Make Good Movies." Each film covers a specific phase of movie-making and shows in detail the many problems facing movie-makers, and how they are solved. One of these films could be shown in conjunction with your title meeting. Follow through with a prepared talk on this subject, and you will find that one of the most interesting meetings of the club has ended enthusiastically.

Do you have members who cut their own records? We have at our club, and several demonstrations have been given. To be more precise, at one of our former meetings a member spoke into a microphone, adding narration as his film was shown on the screen. Immediately the film was shown again and the second voice played back. The ease with which this was accomplished surprised and delighted the club.

Of course, hours of work are required to make a complete musical accompaniment for a film, selecting the proper music and sound-effects and the correct narration. Here again, as in making titles, each film must be treated individually. For records must be carefully chosen to complement the mood of the film. It is not my purpose to discuss the method of dubbing in music and sound effects, but I think it sufficient to show the possibilities for a club meeting.

Some time ago our club was in need of a new screen. Our school of thought favored the beaded screen, while the other considered the half-moon most desirable. To settle all arguments, two screens were procured, one beaded and the other half-moon. A film was selected and shown, first on one screen and then on the other. We then battled the screens, side by side, and projected the film again. A white light was next played

[Continued on Page 233]

* The author of this article writes on the subject of pleasure club programs from a basis of practical experience, not theory. For more than five years he has served as Program Chairman of the very active Philadelphia Camera Club with results which secure only a glance at moments of P.C.C. activities as published in our. Among the Movie Clubs now in credit financially for themselves. Often in reading these reports refer to publications, many, which we could be in Philadelphia and participate too.—The Editor.

Rudy Maté, A.S.C. (standing at left in lower picture) making two of the stills that he discussed from *White of the Teeth*.



"CHEATING" ON CAMERA-ANGLES

By RUDY MATÉ, A.S.C.

ONE evening, not long ago, one of my friends who is a 16mm. amateur said to me, "Rudy, I wonder if you professionals realize how we amateurs envy you, and the resources you have to work with? Take the matter of angle-shots, for instance. When you professionals want to make a shot from an unusually low camera-angle, you think nothing of cutting in a couple of carpenters and tearing a hole in the floor big enough so you can get your lens right down to floor-level. If you want to make a straight-down shot from a high angle, you've got big camera-booms, and special tripods and heads that permit you to point the lens straight downward. We amateurs can't do that. Unless we try to get by with a hand-held shot—which are just as bad form in serious amateur circles as they are among professionals—we're restricted by the fact our tripods will only go so low, or so high, and that our tiltheads have a very restricted vertical arc."

This surprised me, for as I told him, most professionals feel the shoe is on the other foot. We rather envy some of the characteristics of 16mm. and 8mm. cine-cameras, such as the extreme focal depth of substandard lenses, which give the amateur "pan-focus" possibilities 35mm. can't even approach, and the compact handiness of even the larger amateur 16mm. cameras which let them get into positions from which you couldn't make a studio camera.

Besides, the amateur, even today, can get or build several little accessories which will give him, at very small cost, the equivalent of the "high knee" and other special gadgets we use when the script calls for getting unusually low or high angles with our big Mitchells.

For example, suppose one wants some

shots from a very low camera position. Do you know those little, round metal matrices, not much larger or thicker than a pancake, and fitted with a standard tripod-screw, which dealers use for displaying home movie cameras in their showcases? Well, get yourself one of these. It will prove more easily obtainable, I've no doubt, now that your dealer has so few cameras to display on them! And if you detach the tilthead from your tripod and screw it onto this base, you'll have a very excellent low-angle mount or "high hat" for your camera.

If your camera doesn't balance properly on this mount when you've tilted it to the upward extreme, you can usually cure this by nailing or screwing the flat display base to a pair of crossed 1x3's long enough to extend about a foot beyond the base. Sometimes these bases have holes already drilled in them through which you can put your nails or screws (the bases of "Dinky babies" do), but if they haven't, a few minutes' work with a small metal drill will correct the omission.

If you want to mount your camera at "baby tripped" height—say one or two feet above the floor, but lower than your regular tripod will go—you can make use of the same principle, but use a thicker block like a section of cut or felled under the display base.

At this point my friend interrupted to remark that in extreme low set-ups the handle of most amateur tripods might strike the floor and interfere with getting the maximum tilt. Well, I don't believe there is any law saying you can't use a shorter handle—and you can make one (or a longer one, too) by simply buying a screwdriver with a shank the right size to fit your tilthead, cutting off its blade to the approximate

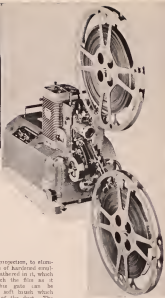


length, and threading the shank with the correct screw thread to fit your tripod.

As for higher shots, with the lens pointing vertically downward, that is also easy. They make quite a variety of tilt-heads for still-cameras; you've probably seen them in your dealer's shop. . . . wooden or metal affixes which can be screwed to any tripod, and which are hinged so as to permit the camera 20° up or down, locking in place with a slot-head brace and a knurled-headed screw. The commercial types don't cost much, or if you're handy with tools you can make your own. Replace your regular tilthead with one of these and you will find little trouble in making most vertical shots.

If your shot demands more height than your tripod will afford, or if your lens-angle is such that you would be likely to include the front legs of the tripod in your scene, there is a little trick you can borrow from professional practice. First, plan your shot so it can be shot in or very close to a door. Then mount your tilthead, by means of one of those

[Continued on Page 20]



Care and Operation of 16mm. Sound Projectors

By D. LISLE CONWAY

President, Synthetic Motion Picture Association

SIXTEEN millimeter motion picture sound-projectors, like any other precision-made instruments, must be handled carefully and given good attention. If they are abused by being banged around, allowed to become dirty or greasy, and are not lubricated properly they will set up the most ungodly noise in a room-full of guest people that can be imagined. Sometimes, they will just simply lay down on the job without a moment's notice and refuse to function, leaving a very red-faced projectionist and a disappointed audience. Then, too, there are certain parts of a projector that need frequent checking and sometimes replacement. These are the projector's lamps and sprockets. A few simple rules will help to avert most of this and assure trouble-free projection.

Keep your projector clean! As with films, cleanliness is also a paramount rule with projection equipment. The lens should be cleaned periodically, or whenever dust or fingerprints appear on its surface, with lens-tissue or better yet, with cotton moistened with lens-cleaning fluid. Both the fluid and the tissue may be obtained from almost any optical house or optician. Avoid using harsh cloths for lens-cleaning purposes as these will scratch the polished glass surfaces and eventually affect the sharpness of the picture on the screen. The projector picture gate should be

cleaned before each projection, to eliminate any dust or bits of hardened emulsion that may have gathered in it, which will, in turn, scratch the film as it passes through. This gate can be cleaned by using a soft brush which will take out most of the dust. The edges of the picture aperture may be carefully scraped with a piece of bone or an orange stick. Never use a piece of metal in doing this as you are liable to scratch the surface of the gate.

If the gate becomes gummy from a collection of oil or grease, a strip of lintless cloth, moistened slightly in alcohol or fine kerosene and rubbed up and down over the deposit lightly, will dissolve and remove it. The clay aperture should also be cleaned by the same method as it, too, will collect dust, oil, and dirt particles.

The sound gate of the projector must also be cleaned at regular intervals, as dirt and oil collecting in it will not only lower the volume of the sound but will also distort the quality of the sound heard from the speaker. Dirty sound gates not only affect the quality of the sound, but will in time scratch the sound tracks of the films passing through it so that the sound will become crackly, raspy, hoarse and unintelligible, even when played on perfect projectors.

Some sound drums, as on the Victor projectors, may be readily detached for

cleaning purposes, by means of a thumb-screw. Others using the EBPL-type gates, such as the Holmes, are opened up and cleaned in a different manner. Consult your instruction manual for information as to this. Make sure that all sprockets and external parts are kept free from oil or grease so that they will not dirty the film.

Most projectors need only a little oil, but they do need it, and at regular intervals, too. This is most important! Correct lubrication of moving parts in all mechanisms is essential if the mechanism is to run smoothly and quietly. Over-oiling can do as much damage as under-oiling in many instances, so consult the lubrication chart of your projector and follow its instructions religiously. When oiling, be careful not to get any oil on the lens, picture gate or sound drum. Again let me stress that the lubrication of your projector is most important—learn to do it right, and when necessary.

Projection bulbs are becoming in-

(Continued on Page 230)

Better Pictures With Less Film

By HAL HALL

WITH vacation time just around the corner for those who will have vacations, many amateur movie enthusiasts are now worrying over their film supply for filming of those summer vacation movies. Careful use of film for civilian use has put quite a crimp in home movie making, with little hope for relief in sight.

However, the film shortage really should not cause a great deal of worry on the part of intelligent users of 8-mm and 16-mm cameras. As a matter of fact, the wartime film-shortage might well prove a blessing to many amateur movie makers, for it will tend to make them more careful and perhaps prove to them that in years past they have wasted many hundreds of feet of film on unnecessary shooting.

From my own experience I can honestly say that it is possible for any amateur to come up with just as much edited footage during this year's vacation period, but with only one-half the usual amount of film actually exposed as in previous years. If the home movie maker will adopt the slogan, "more finished picture on less film," he will not only come back from his vacation with better pictures, but also at considerably less cost.

The secret of getting plenty of excellent pictures with less film lies wholly in careful planning. The ordinary vacationer starts on his trip with no thought of what he is going to film. In previous days he went to his photographic desk, bought a vast amount of film and started out prepared to shoot anything and everything that suited his fancy. He would come upon a beautiful and breathtaking vista; out would come the camera and he would grind and grind and grind, with no thought of footage. Around the next turn of the road he would stumble across another scene still more gorgeous, and again he would over-shoot. Throughout his entire vacation he would expose endless feet of film whenever he turned his lens upon an interesting subject.

Vacation over, our cameraman would then set to work editing his film. Then, and only then he would discover that he had to throw away hundreds of feet of film or else have a show, dragging, boring film to show his friends.

My suggestion is to edit your pictures before you shoot them. If you do that you will find you will not need half the film you have used in the past. It is a simple thing to do if you make up your mind to it. And it will save you money.

A good way to set about this is to write down on paper the things you want to include in your vacation film. You should have a general idea of where you are going and what you are likely

to see, so it should not be difficult to roughly lay out your "scenarios" or plan. Next, decide the length you think you will want your completed film to run. Get all this definitely in mind before you start out.

Then, when you discover a bit of scenic beauty you want to shoot decide how much footage you will want of it in your edited picture before you start shooting. If you decide on fifteen feet, ten feet or twenty-five feet, shoot just that and no more.

If you happen to be planning to attend a rodeo on your trip, plan carefully and watch your footage, for in the excitement of the occasion you are likely to overshoot greatly. Most amateurs at such an event are prone to shoot too much long-shot material. Most of the long-shots are eventually thrown on the cutting room floor—no why about them?

At a rodeo I would suggest you chuck up on the events ahead of time. Decide which you think will be the most interesting. Then prepare your shooting outline somewhat like this: 25-foot pan shot showing the crowd. 10-foot medium-close shot of horses in corral. Eight-foot medium-close shot of riders sitting on corral fence. If you see small child peering through the fence, get a 4-foot close-up of him for human interest. If there is a particularly ferocious bull waving up dirt and starting in a corral, try to get about 10 feet of him as close as possible. If you can't get close, don't shoot it. Get close to the chute out of which the horses come into the arena and make five to 10-foot action shots as they start into their first and wildest bucking.

If you see a rider is fairly good, hold your shooting until the horse really gets into action. Then train your camera on him and get about ten to fifteen feet of that action. Usually the rider will be thrown in that length of time—if you wait for the horse to really get seriously bucking. Don't start shooting from the time the horse and rider appear until it is all over. Be ready for accidents, and if a rider is down and about to be trampled swing your camera and get that, but don't keep on shooting after he is rescued.

In all of your shooting, whether scenic or action, cut down on your long-shots and get more close and medium-close shots. You should long ago have noticed that in the making of professional films, long-shots are only used to establish the action or locale, after which the editor "moves in" to closer angles. Follow the same procedure in making your films.

That it is very feasible to determine the length of each shot before shooting is being proven every day among the smaller independent film producers of



A amateur film tells the story of a chuck wagon boss particularly well with a little planning; you can shoot it without wasting an inch of film!

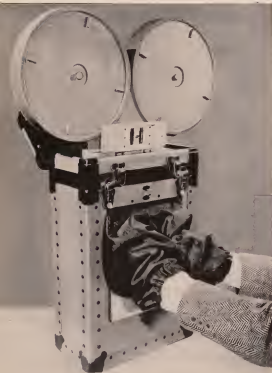
Hollywood who are compelled to make their pictures on a small budget. This writer, away back in 1925, first had occasion to use this system in directing a series of one-reel pictures that were released by the then well-known Tiffany Company. We were using the old two-reel Technicolor process, and were making the pictures on almost a shoestring.

In those days the negative was hypersensitized in Hollywood and had to be shipped in iron containers to wherever it was to be used. The negative cost fifty cents a foot, which was considerable. On a limited budget you had to figure to the foot, almost, or you would lose money. You ordered just what amount you needed. If you had any left over it stood a good chance of spoiling unless you kept it packed in ice all the time.

When I prepared to make the first of
(Continued on Page 135)

CAMERA EQUIPMENT COMPANY AND

"PROFESSIONAL J_r"
TRIPOD With Removable Head
and the
Field Developing Kit and "Hi



The New Type Removable Head "P

★ The new removable head feature adds a "Professional J_r" Tripod. It is now possible to head from the tripod legs base by simply unscrew. The tripod head can then be moved on for low setups.

The friction type head gives super-smooth pan & 90° tilt. A generous sized pin and thread on "Spreading" design affords utmost rigidity adjustments. A "T" level is built into this superior tripod. Also E.K. Cine Special, with or without motor (with motor), and with or without alignment, is also available. 5 years. More data also. With Removable Head is contained in its literature.

The Field Developing

★ The kit serves as a portable darkroom for projection picture film in the field or on location. It is available for Mitchell, Bell & Howell and Kodak. Also available for Cineflex magazines. The design uses three bottles for developer, fixer and water. Data will be sent upon request.

"Professional J_r" Triads, Developing Kit, etc. are used by the U.S. Navy, Strategic Services and other Gov't Agencies by and 35mm motion picture producers.



ANNOUNCES THE NEW TYPE

JR."

e Head

i-Hat"

"Professional Jr." Tripod

...great flexibility to the versatile
...to easily remove the friction type
...screwing a finger-grip head fastening
...ed on a "Hi-Hat" low-base adaptor

...on and fit action, — 360° pan and
...assures long, dependable service,
...y and quick, positive height adjust-
...e tripod. The top-plate can be set for
...ator, 35mm DeVry and B & H Eyemo
...nt gauges. The tripod head is uncon-
...about the "Professional Jr." Tripod
...sure that will be sent upon request.

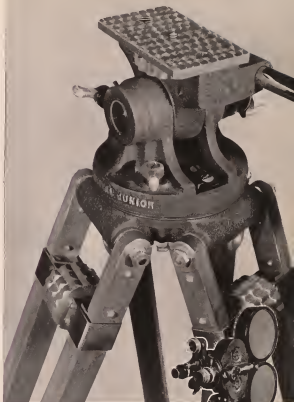
Folding Kit

...for developing hard tests of 35mm
...m. The kit is equipped to take 400 ft.
...Vail magazines. A special adaptor is
...Folding kit is furnished with 3 special
...and water. More complete descriptive

"Hi-Hat" and Shiftover Alignment Gauges made by
B. H. H. Army Air Base, Signal Corps, Office of
...by many leading National companies and 15mm

C. ZUCKER

EQUIPMENT CO.
NEW YORK CITY



"Hi-Hat" and Shiftover Alignment Gauge

★ Illustrated is the B. & H. Eyemo camera mounted on the Shiftover Alignment Gauge and "Hi-Hat" low base adaptor. The "Hi-Hat" low base adaptor takes the "Professional Jr." tripod head for setups where the tripod legs cannot be used. The Shiftover device (designed by General Equipment Co. and patent applied for), is the first, lightest and most efficient available for precise correction for the Eyemo Spider Turret prime focus focusing type camera. The side of the Shiftover attaches to the camera base permanently and permits using the regular camera handle if desired. Further data about the "Hi-Hat" and Shiftover will be sent upon request.





Illustration showing equipped setup for light reflection on a strobo-scope

More About "Strobo-Sync"

By S. JEPSON.

Secretary Amateur Cine Society of India

IN LATEST ISSUES OF THE AMERICAN CINEMATOGRAPHER I have read articles by D. Lule Conway and others regarding the stroboscopic method of synchronizing 16mm. and 8mm. films with sound-on-disc. These interested me very much, as we out here in Bombay have done quite a bit of successful work with this easiest and least expensive method of adding sound to silent amateur films. And since Mr. Conway asked for any further information on the subjects from other amateurs who have investigated this system, here are a few practical tips from our experience which may help other amateurs overcome their difficulties.

For example, with some of the lighter recorders put up in portable form, there is a difference between the recording and play-back times. This is obviously due to the fact that during recording the steel needle is cutting, but when playing, the needle is, of course, merely riding in the groove. I have found this cutting lag (shall we call it?) to vary as much as 10% to 20% over the play-back time. There is also a slight variation between the lag on the outside and inside of the disc, though for practical purposes this may be disregarded, provided you do not cut right into the middle of the disc near the label.

I have therefore found it desirable to take time with a stop-watch when cutting with a strobo-synced disc. The play-back time is then noted, and I keep an assessment of stroke times and can work out mathematically from the lag what disc will be required for synchronization in playing.

This sounds a little complicated, but in reality it is not, and will enable exact synchronization to be achieved even when there is this irritating difference

between cutting and play-back time. I have found that a difference of three bars in the play-back strobo-scope will meet this case, and if, for instance, I cut with a 30-bar strobe I can play-back on 36 bars in the circle. I had an artist make me up a set of master strobe discs ranging from 30 to 42 bars, and made negatives of these so that I can make photographic prints either by contact or enlargement to stick onto the records. If you don't want to go to the trouble of photographing the drawing, you can have it made with India ink on tracing-paper, which can be used as a negative for printing.

Another method of compensation is to cut at 88 r.p.m. and play back at, say, 70 r.p.m. by having a spare pulley for the friction drive of the recorder transmission below the plate. I have arrived at this method and find that if I cut at 80 r.p.m. I get a correct pitch of voice. If the voice seems too high, the play-back time is too fast, of course. When using two turntable-speeds in this way, one of course keeps the same strobe disc.

Another uncertain factor is that after playing some scores of times the play-back time increases with these soft acetate discs. Therefore it is necessary to put the original play-back time on the label, and check it after some months. All one has to do then is to fit a strobo-disc which permits a slightly slower rate of playing for synchronization.

I imagine this difference is due to the fact that the grooves become polished by the needle. I have had some discs over a year and played them hundreds of times (they are still very good except where scratched with side-slipping) and after I have altered the strobe for this wear-and-tear adjustment I have not found it necessary to do so a second time.

The weight of the pick-up head is important, because if it is too heavy the needle will not travel on those discs, or may damage the grooves, while the wear on the disc will almost certainly be increased. This weight may be reduced either by a small spring at the end of the pick-up arm, or by a counterpoise weight to lighten the weight of the pick-up end of the arm. Trailer needles, which have a bend in the middle, will track on heavier pick-ups without trouble. Thorn or cactus needles are good for drawing-room work, but lack the volume of metal needles for large halls. The thorn must also be of the right shape, and not too finely pointed or it will break.

Mr. Conway illustrates his strobe by a mirror near the projector's gate. If the light spilled from the gate does not come through the shutter movement, then this idea will not work. And in some projectors in which the shutter is placed in front of, rather than behind the gate, the light is spilled from the gate, but not through the shutter. (The old Eastman "Model A" is an example of this.)

A better idea is to place a piece of optical glass (an old negative, perfectly clean) in front of the lens. The picture can then go through to the screen, while an image reflected from the front of the glass can be thrown onto the turntable, providing additional light for lighting the disc. If the optical quality of the glass is good, the focus of the projected picture should not be affected (most theatres project through a glass window, you know) and there should not be any noticeable loss of light in the projected image. If the focus or illumination should be affected, this glass can be so placed that it can be removed, or merely placed in position now and again to test synchronization or to resynchronize if the speed has been altered to make up lost time through picture and record getting out of step. This method is simple and very effective, and the photograph turntable can even be placed at the side.

In a small room the turntable can even be illuminated from screen flicker itself, and can then be placed near the screen,

(Continued on Page 228)

There may be
Fewer Pictures
and
Better Pictures

Certainly, then —
The Better Pictures
are photographed with

EASTMAN
NEGATIVES

Because
there will never be a
BETTER NEGATIVE
unless it's made by
EASTMAN

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AMONG THE MOVIE CLUBS



7 Clubs Meet Jointly in L. A.

On Tuesday evening, May 13th, the Los Angeles Seven Club held a joint meeting with the Water & Power Camera Club, a group composed entirely of employees of the Los Angeles Dept. of Water & Power. The spacious Southern California Edison Auditorium had been donated for the evening and invitations extended to neighboring clubs, including the L. A. Camera Club, the Cine Club of Glendale, the La Casa Moviemakers of Alhambra, the Southwest News Club, and the Long Beach Camera Club, all of which sent visible delegations, resulted in a packed house.

The meeting opened with the singing of our National Anthem. Hopson followed the screening of six films shown members prize winning films. Shown were "South Sea Island Fever" by Newell Tume, "American Indians" by Mrs. Mildred Zimmerman, "Ten Gallons of Oats" by Leo Calani; all members of the Los Angeles Camera Club "Clash—Land of Enchantment" by D. A. Powell, of the La Casa Movie Club of Alhambra; "Mr. X" by Norman L. Brown, President of the Cine Club of Glendale, "Calamity Xmas Contest" by Mrs. Jean Heffrock of the Southwest News Club.

The program wound up with the showing of two professional films, sound films in Kodachrome "Railroaders," a thrilling picture on the railroads of the nation, produced by Jack Boland, who was introduced, and "Curves of Color," by General Electric, depicting the latest development in the matching and retouching of color graphically.

A. W. APEL,
Secretary-Treasurer

Philly, Norristown, Exchange Honors

The old adage "Variety is the Spice of Life" works for movie club programs. To add variety to a neighboring club's program is not as difficult as the sug-

gestion seems. Last month the Philadelphia Cinema Club arranged a program for our neighboring club in Norristown.

The Cinema Club of Norristown cooperated with a program at the May meeting of the P.C.C. Highlighting the evening's entertainment were "Nanny" films, by Pres. Julian W. Barnard; "This Is Florida," films, by Vice Pres. and Mrs. Oscar Rein, "Christmas" films, by Merrill Rein, and "Scenes of Pennsylvania," films, by Lenora Umstead.

The fine films shown at our meeting justify the pride which Norristown has in her amateur movie group. This inter-club co-operation has resulted in a program for each club with the minimum of effort, better club relations, new friendships formed and above all, an interesting meeting which will long be remembered and perhaps become an event to look forward to annually.

One of the problems which faces all movie clubs is that of obtaining members' films to show at meetings. Most members seem to have the same obsession—fear of criticism. A member may say, "I would like your criticism of my film." The sad part of it is that he wants your help but receives instead a hurt to his pride. A solution to this problem may be found in a film rating sheet, wherein a member receives an average and will try for a better score on his next film. The technical committee could use this sheet in an informative manner to aid the filmer in improving his work.

The Philadelphia Cinema Club has such a sheet that has worked out quite well for our club and we would be happy to co-operate in standardizing a film rating plan among all movie clubs. If interested, please contact George Pittman, 1848 E. Tulpehocken St., Philadelphia, Pa.

FRANCIS M. HIRST

Prize Films in Syracuse

The May 4th meeting of the Syracuse

Left: Long Beach Camera Club officer's chairs; the first round program voted by an American amateur club. Left to right, President Claude Rein, Audit and secretary, Ed Smith, George Adams, Treasurer A. W. Apel, Vice President Michael Gilbreth, and Secretary Louis Smith, photo by Cliff LaRue. Right: scene, officers of the Norristown Cinema Club who conducted the May meeting of the Philadelphia Cinema Club. Left to right: Vice Pres. Oscar Rein, President John W. Barnard, and Secretary Treasurer William Rein. Below: P. C. C. officers. Standing, Francis M. Hirst, Philadelphia; Dr. Robert Wenzel, Norristown; Adolph Farnell, Program; William Smith and William C. Smith, Executive and Technical A. Brown, Membership; Seated: Secretary James E. Murphy, President George Pittman, Vice Pres. Arthur Smith, and Louis H. Smith, photo by H. E. Moore.

Movie Makers' Assn. was featured by a comparison of members' screens, tabulating the good and bad features of each type in the same way projects were compared and tabulated at a recent meeting. At the May 18th meeting, three films from the library of THE AMERICAN CINEMATOGRAPHER were screened. These were "Solar Eclipse," "Ritual of the Dead," and "To the Ships of Sydney," all International Prize-winners from A.S.C. amateur contests. The Club, by the way, is also launching its own publication, a 3-page mimeographed journal, "The Viewfinder," announcing and discussing club activities.

HARRIS RUSSELL

Right and Wrong in Indianapolis

Dr. Wm. E. Gale was host at the April 21st meeting of the Indianapolis Amateur Movie Club. He showed several of his clever films, including "Right and Wrong," an 800 ft. Kodachrome (16mm) showing all the wrong things to do in exposing Kodachrome, followed by the right way to do the same scene; "Postpours," a clever and very interesting film showing what can be done with odds and ends of film such as all stunts, accidents, and "Spring Mill Park," a beautiful job of photographing



Still in Hollywood

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Movie Clubs

(Continued from Page 284)

one of Indiana's most prominent parks, showing it isn't necessary to travel long distances to get a picture with audience appeal. Also shown was the new MGM sound-film, "A Day at War in Russia."

ELMER M. CULBERTSON,
Corresponding Secretary

Pie and Ice in Pittsburgh

The April meetings of the North End Camera Club of Pittsburgh were featured by Jerry Miller and William Hager.

Jerry Miller presented an interesting program on care of your equipment. Mr. Miller's program was timely since we must take care of our cameras and projectors more than ever during these times.

"The Ice Follies of 1943" was William Hager's presentation. A picture in three dimensions in which he collaborated with another member, Frank Russell. Mr. Hager also showed his hilarious comedy, "The Modern Pioneer," a black and white film on "How not to bake a pie." A baker by trade, he should know, and has put it very nicely on film.

Several of the club members are making "Victory Garden" pictures and Jerry Miller has consented to write a script.

GUS WOLFF

Sol Polito

(Continued from Page 212)

old Victor Company, which was a subsidiary of the Universal. There were no such things as Assistant Cameramen back in those days, but Tony was generous enough to take an ambitious young Italian boy like me under his wing as a sort of combination preceptor-apprentice, and teach him the camera business.

"Don't waggle from that, though, that I had any official standing with the company!" I didn't. If I wanted to come along with Tony and help him "for free," while I learned what I could about camerawork, that was all right. But as for paying me a salary, or even giving me any official consideration from the company, that was another thing entirely.

"Most of the pictures were made out doors, on location, in those days. And as I wasn't a regular member of the troupe, there naturally wasn't any place for me in the company cars that drove the troupe to the day's location. Sometimes, when I was very lucky, I might perhaps be permitted standing-room on the running-board. Much more often, I paid my own way to the location by trolley-car, and supplied my own lunch into the bargain. Sometimes I even hitch-hiked.

"But I learned! And it wasn't so very long before I had learned enough so that—by the easy-going standards of 1911, at least—I was a fully-qualified cameraman.

"Then I got my first pay job, as a cameraman for the IMP (Independent Motion Picture) Company, which was the producing branch of the Universal organization. Andre Barlatier, A.S.C., was the company's Chief Cameraman, and I stayed there for about a year.

"The reason for my leaving the IMP Studio sounds funny today, but it was deadly serious then. We had been making our interiors with Cooper-Hewitt mercury-vapor floodlights. Then some of the first arcs were introduced—the old 'Arcies' overhead arc floodlights, and some of the poorer arc spotlights. On one scene I decided to try what we would now call an effect-lighting. That is, I used one of the arcs to cast strong shadows on the set. When the studio came through, the executive was furious. . . the shadows, they said, distracted attention from the actors and ruined the scene! The upshot of it was that I was fired. Yet today it's traditional among cinematographers that they're paid more for the shadows they create than for the highlights!

"But if IMP didn't want me, Biograph—then the foremost of those early-day producing organizations—did. I stayed there for some time and a very pleasant association it was.

"When Biograph moved to the Coast, I stayed in New York, joining the World Film Co. founded by David O. Selznick's father, the late Lewis J. Selznick. Among the interesting experiences I had there was photographing a picture starring Lillian Russell.

"After a while, though—I think it was about 1916 or 1917—I decided to come out to Hollywood, as the more and more of studios were beginning to move to the coast. My first job after reaching Hollywood was a little two-day 'makeup' starring Lew Cody. It really was a twenty-day picture made in ten, for we worked day and night, trying to get out with the picture in time to 'beat' a rather sensational divorce trial then monopolizing the headlines, and upon which the picture was based.

"I was nearly a week when that picture was finished . . . but the hard work proved profitable, for Jack Pickford saw the picture and decided that if I could do that well on a ten-day 'makeup,' I could certainly do much better on the longer schedules his pictures offered. So my first major job on the coast was, oddly enough, with the First National Company, which at that time was a part of the Warner Brothers' organization, and through which Jack's pictures were released.

"The next few years after that we spent free-lancing. Like many another cameraman I worked a while at the old Metro studio . . . then spent several years with Edwin Currau, who released through First National . . . then more free-lancing on both big pictures and little ones, until I made a connection with Stuart Rosenberg, who had just started producing on a very thin shoestring. After a while Rosenberg was joined by Charles R. Rogers, and our organization became more stable.

"In due time, the Rogers producing

unit moved over to First National, and when, after a time, he left First National, I stayed on there, doing all kinds of pictures, big and little. Among them were a number of westerns with Ken Maynard, who was one of First National's top boxoffice stars. The experience I gained in making those pictures was to come in handy nearly twenty years later, when I made such deluxe super-modern westerns as "Dodge City" and "Gold Is Where You Find It" for Warner, in Technicolor, and other similar pictures in black-and-white with Errol Flynn.

"As time went on, sound came in, and then Warner Brothers absorbed First National—and still I've remained on the same lot. All told, since I came to First National with Jack Pickford, I've been just twenty-three years with First National and Warner Bros., which I believe comes pretty close to a record for staying at one studio. It's interesting to look back on those old pictures I did twenty years ago, and on the still earlier 'flickers' I did with IMP and Biograph, and compare them with a big modern picture like "Sergeant York" or "This Is the Army," which I'm now photographing in Technicolor. Things have certainly changed—and I think that we cinematographers have, as the whole, managed to keep pace with those changes as well as, or maybe even a bit better than any other group in the industry.

"For example, while quite a few of the men who had been front-rank cinematographers in silent pictures dropped back professionally when sound came in, and a proportionate number of new cameramen talent came in the top as a result of the change, I think that cameramen, as a class, suffered less by this transition than did the actors, directors, writers and others. And certainly we all agree today that the foresight and courage the Warner brothers showed in championing sound as they did lifted the entire industry out of the doldrums, both artistically and as a medium of entertainment. You have only to try and visualize how empty any of today's pictures would be if the element of sound were removed, to realize how much sound has meant to the motion picture.

"But at the time of transition, it was a hard and bitter door to swallow, for it meant unlearning a lot of what we thought was unchangeably basic technique, and learning a lot of new and strange facts and methods of working in some ways, this change was hardest for the cinematographers, for they had to accustom themselves not only to the medium of sound itself, but to new types of film, new lamps, new methods of lighting, and, in fact, an entire new system of camerawork.

"The emphasis that a very important part in this has been played by the various organizations through which cinematographers have been brought together to interchange ideas and technical information, and to establish professional and technical standards of

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achievement. I was a member of the old Cinema Camera Club in New York—the pioneer organization which first attempted to bring the cameramen from the different studios together to develop professional fellowship. When I came to California, well, I can't lay claim to having been one of the Charter Members of the A.S.C., but I am proud that I was admitted to membership very soon after, in the summer of 1929, and I have been a member ever since. I know my own work is the better for what I've learned from my fellow cinematographers at A.S.C. meetings, and for the improvements in equipment and materials which have resulted directly or indirectly from the forward-looking influence of the Society and its members. And after more than twenty-four years, I think that influence is only just beginning to bear its full fruit, for there are greater problems to be met, and greater improvements to be made, thus ever before. **END**

Preparation

(Continued from Page 218)

ally went through the evacuation of Java as were available have been interviewed personally, cameramen will probably be interested to know that even *Seven Kodachrome* movies of Java (including some scenes of the evacuation) shot by a Dutch merchant marine captain, have been repeatedly studied.

All told, an incredible number of detailed files on every possible phase of the entire subject have been painstakingly built up, analyzed and broken down by Salven to provide the rest of us with the most authentic data possible concerning every detail of the picture.

Meanwhile, art director Anderson and costume-designer Visart have also been studying the data concerning their specialties. Anderson, for example, had to master a detailed knowledge of the Chinese and Japanese locations—towns, roadsides, docks, homes, and even ships—while Miss Visart studied not only the costumes of the natives, the Dutch and other civilians and the American military and naval personnel who participated, but even the precise, clinical details of the bandages worn by the wounded under Dr. Wausell's care. Few people other than doctors and nurses will probably notice it on the screen, but as the actors who play the parts of wounded sailors and civilians progress through their parts, they will appear in surgically correct reproductions of the bandages real wounded men would wear at the same stage of their progress from field dressing-station to field hospital to base hospital, and thence through the various stages of convalescence and recovery.

At the same time, working closely with Mr. De Mille, Anderson, Salven and I began breaking each scene and sequence of the script into its component camera set-ups. Anderson first draws a master sketch of the scene—usually embracing the basic long-shot angle. Then he breaks this down into the component

(close angles. These sketches are smaller, but quite detailed. Arranged in their proper order, they show the entire visual progression of the sequence, in the case of home or dolly shots, of course, only the start and finish, and perhaps a few key intermediate positions are sketched out. These form what might be called a rough working blueprint of the scene as it will appear on the screen. They are not followed slavishly, of course; perhaps actual, physical conditions on the set may lead to minor deviations from the planned sketch. An actor cast for a certain part may be taller or shorter than we had visualized when we made the final sketch, or it may be more convenient or dramatically better to place him or the camera a bit differently from the way we had planned to. But in general, these sketches serve as a remarkably accurate guide to what all of us will do on the set—where Mr. De Mille will play his action, and how, and what basic angles and compositions I will use, and so on.

This method permits us all to study the picture in advance, and in the many conferences which thresh out each scene and set-up in detail, we can and do eliminate unnecessary scenes, set- and action—sometimes eliminating them entirely, and sometimes telescoping that action into parts of other scenes. All this long before the sets are actually built.

When actual construction starts, Anderson knows how I am planning to light and photograph each scene and set-up, while I know to a nicety just what sort of a set I am going to be working on. Thus we can coordinate our efforts. We have one sequence, for example, played in a Dutch hospital. It probably won't be shot for a month or so yet, but already we know just how it will be treated. Anderson knows from what directions my basic lighting will come, and how I plan to orient my closer shots. On my part, I know there will be open windows and skylights here, and opaque walls there. I know that at certain points Anderson is providing removable ceiling-panels, to facilitate my lighting. I know that certain of the walls will be solid, and others will be "wild," and probably of fabric, to facilitate removals there. We know that in one set-up, I will have to shoot at an extremely low angle, from underneath a cot. The three-lens Technicolor camera is pretty big, so we've provided a special cut with telescoping extension legs, so that it can be raised to clear the bulky camera. By removing a couple of joints the cut separates into two pieces, so that we can dolly right up to and past it without waiting for special modifications on the set.

These sketches, by the way, are made not only in color, but in precisely the colors of the actual sets and props. This is naturally important on a Technicolor picture, but we do it when working in black-and-white, too. De Mille wants to know just how everything will look on the actual set—and he turns to me constantly with the question, "How will this photograph?" whether we're working in macrochrome or color. Under this system,

there are no winks on the set while this detail or that are spray-painted while the overhead maestro merrily yips.

At the same time, Roy Hunter and I are working out the strictly phototechnical problems. For instance, we have some low-angle shots for which the lens must be lowered to the floor than is usually possible with a Technicolor outfit. Therefore a special understanding boom-head is being obtained. In another scene, we have a regular Gregg Toland "pan-focus" shot to be done in an extremely big set, with the necessity of obtaining sharp definition in a close shot of Gary Cooper—less than eight feet from the lens—and carrying equally sharp definition to action several a huge Buddha some ten or twelve feet from the lens. In black-and-white this might be done by over-lighting and stopping down a short-focus lens until the desired depth was obtained. In Technicolor, with its slower emulsions, this can't be done. The nature of the scene prohibits split-screen double exposure. So we are designing a special bifocal lens—or, precisely the same principle as a pair of bifocal spectacles—in which the lower segment will be comparatively long-focus objective—say a 3-inch—to give us the big head shot of Cooper in the foreground, while the upper segment will be a shorter-focus lens focused on the background. The position and shape of the band between the two will be suited, of course, to the nature of the scene's action.

All told, this preparation makes the actual shooting of the picture perhaps the easiest part of the job, for every day we—and everyone else on the set—know precisely what each set-up is to be, how it is to be treated, and when it will be photographed. As Salven points out, ordinarily a lot of valuable production time is wasted because, in making one shot, a lot of unused jumps, furniture, props, and the like from the previous set-up may be piled unnecessarily to one side—and then, on the very next set-up, it is found that they must be moved again as either action or camera may have to occupy that spot! On a De Mille set, that never happens, for everyone from "C. B." himself down to the lowest member of the stage crew knows precisely what shot is going to be made next throughout the day.

Small wonder, then, that De Mille and his crew so consistently surprise the "practical men" of the industry with their all-around efficiency on big productions. The real wonder is that more directors and executives haven't learned from his example of the practical profits preparation can pay! **END**

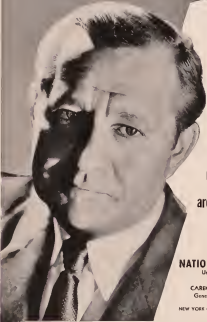
"Strobo-Sync"

(Continued from Page 222)

though it is not desirable as it involves a second person to look after the photograph, and some means of signaling to the man at the projector.

The best method of all is a blinking electric light through a commutator

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fitted with the shutter of the projector, and a small cone bulb fixed in a cigarette tin hanging over the disc. This means the record-plate can be anywhere—even behind the projector, which is a very good place for it. I find this electric method simple and satisfactory.

In spite of the advantages of being able to show one reel and play one 33 1/3 r.p.m. record with it, I think most amateurs will prefer the standard photographs of 16 r.p.m. and two turntables played through one amplifier. (Especially as 16 r.p.m. turntables, though hard to get, are more easily obtained than 33 1/3 r.p.m. ones! Ed) This is perfectly simple. All you do is switch over from one turntable to the next when the sync-mark flashes onto the screen. In this way I have given shows in Berkeley—sometimes to several hundred people—and with two projectors running one can carry on quite comfortably, while many in the audience think they are listening to sound-on-film. **END**

Better Pictures—Less Film

Continued from Page 219

those pictures I very carefully went over the shooting script and figured the exact footage for each scene. In other words, I cut the picture before shooting. If I figured I wanted only six feet for a close-up, I shot only seven feet, giving a foot over for cutting waste. When I had figured the footage we telegraphed for that amount of film, and as soon as the

picture had to be shot at that length.

The Technicolor cameraman who arrived in New York to photograph the picture had just finished shooting the Technicolor sequences in Cecil B. De Mille's spectacle "The King of Kings" in which footage runs no bounds. So, you can imagine his look of wonderment, almost dismay, when I told him how our picture was to be shot. He shook his head and said that pictures weren't shot that way. I told him ours would be. Well, when the shooting was done the picture was already edited. All that was necessary was to splice in the silent titles of those days.

I recall one of those films which received much favorable reaction from critics all over the country. It was a picture called "Memories." In it was a beautiful young girl named Anita Freeland. She is now known to picture lovers as Anita Louise. When we had finished making the final shot on that picture we had exactly THREE feet of negative left over. The system must have been all right, for "Memories" played one week at the New York Paramount theatre, and, to my personal amazement, was praised by the film critics of the New York papers ahead of the feature picture. It then ran 12 consecutive weeks with a Harold Lloyd picture in New York, and did its 18th week in Times Square at Loew's.

Why not try this system of pre-shooting, editing and save work, film, time and money—and reverse the wastes of wartime film shortage. **END**

Projector Care

Continued from Page 218

surprisingly hard to get new, and, in many parts of the country your old bulb must be burned in if you want to receive a new one. This means that it is most important that we lighten the lives of these lamps as much as possible. A little understanding of them will do much to extend their useful service quite a bit.

First, do not operate a projection lamp beyond its rated voltage. For instance, if a 750-Watt lamp is rated or marked from 100 to 105 to 110 Volts, it should not be burned at 120 Volts. To do so will materially cut down on its life. Today, it is better to sacrifice a little light on the screen and have it last longer. If you operate your projector in a factory district or where electrical voltages are liable to be irregular due to the starting and stopping of large electric motors, then it is a good idea to put into your projector a 110-Volt bulb for use on the 110-Volt line. This will cut down on the light efficiency a bit maybe, but at the same time any sudden surges caused by the operation of large electrical motors which might be transmitted to your projector will not have such a straining effect on the lamp. Some projectors have voltage control rheostats built into them, so that the voltage to the lamp can be lowered. These are very helpful in prolonging the life of the lamp.

Second, if your projector is equipped with separate motor and light switches, always switch your motor on first, and then your light. This will lessen the effect of the peak voltage surge that the lamp's filament would have to bear due to the extra power needed to start the motor.

Third, do not try to over-power your projector. If the projector is supposed to take a 500 or 750 Watt lamp, do not try to use a 1000 Watt lamp to get extra light. The cooling capacity of the projector probably isn't sufficient to cool this larger lamp and the overheated globe will probably die an early death. The extra heat as the film passes the lamp will also injure the film—especially Kodachrome.

Fourth, handle your projection lamps carefully. If your projector is to be transported over long distances or over bad roads where it is liable to be bounced, remove the lamp first and put it into a box lined with some soft material so that the filament will not be damaged. The same applies to the amplifier's tubes and the exciter-lamp.

Remember, there is a definite shortage of incandescent bulbs and amplifier tubes. Treat yours carefully, and keep a spare lamp with your projector at all times, just in case it burns out while you are showing a picture. Even with the best of care they do burn out, and usually at the most inopportune time.

The exciter-lamp of your projector furnishes the light which is passed through the sound-track to the photo-electric cell. Inasmuch as this bulb is

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also subject to occasional burning out it is wise to keep a replacement with the machine as standard equipment.

The adjustment of the voltage on the photoelectric cell should be such that with the volume control half-way open the sound from the loud speakers at the screen should be about normal. If it is too loud or too soft at this point the voltage adjustment should be changed so that normal volume can be heard with the volume control half-way open. This will allow extra power for additional speakers if needed and yet keep the quality of the sound normal in respect to the frequency response. Consult your manual as to where this adjustment should be made.

Whenever the sound drum is removed and the exciter lamp is open to cleaning, clean its surface of any dust or dirt that may have collected on it. At the same time remove the cover of the photoelectric cell and clean the surface of this bulb also. With an ERPE-type gate the lens that focuses the light from the exciter-lamp onto the sound-track should also be occasionally cleaned and checked for proper focus. Your instruction manual will give you directions as to how to do this. It is important with any type of sound optical system that the optical unit be focused sharply on the sound-track at all times, otherwise the sound is liable to be fuzzy and indistinct. On some projectors there is an adjustment to compensate the sound pick-up's focus for reversal signals and films, reductions, in which the emulsion-side runs facing the lens, and for reversal dopes (including Kodachrome), in which the emulsion is away from the lens. For the best sound quality, be sure to use this adjustment if your machine has it.

Though use the photoelectric cell may lose its output gradually, a spare should always be kept on hand so that this essential unit may be replaced.

By all means keep a spare projection lamp and a spare exciter lamp with the projector at all times. If either of these burn out, the light on the screen or the sound from the speakers will cease and the show will have to be stopped until a replacement can be located.

The sound amplifiers of your projector use tubes similar to those used by radio and public-address systems. Consequently they should be checked about once every six to eight months by a competent radio service man or dealer to make sure that they are giving the performance that they should. Inasmuch as a number of these tubes are no longer made, due to the war, a complete set of spares should be obtained. If your radio dealer does not have them or cannot get them for you, order them direct from the manufacturer of your projection equipment; he may still be able to obtain them or locate some for you, or suggest substitute types which are obtainable.

Amplifier troubles are usually indicated by a sudden loss of volume, crackling in and out of volume levels,

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Sgt. David MacDougal who directed the making of "Desert Victory" and "Attack on DeVRy Model A Camera"

the grimmest as well as the grandest detail of sheer, thundering, howling hell—the British 8th Army's bloody writing mat of Rommel from El Alamein to Tripoli. You want to see "DESERT VICTORY"? You want the best in war-born motion picture sound equipment—cameras or projectors? When Peace comes, keep your eye on DeVRY! DeVRY CORP., Ardenage Ave., Chicago, U.S.A. BUT WAR BONDS NOW!



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or tone distortion, buzz, hiss, etc. When this occurs, or the sound ceases entirely, check over your entire system, making sure that the exciter lamp is not burned out, the photoelectric voltage is being supplied to the photoelectric cell, the amplifier fuse is not burned out, and the path of light between the exciter lamp and photoelectric cell is not blocked. Also check the wiring connections to amplifier and speaker to be sure that they have not pulled loose.

If you are operating your projection out of town, check to be sure that the voltage supplied to your projector is correct and that it is 60 cycle alternating current for your amplifier, unless your equipment is built for other frequencies

is a—50 or 30 cycles, AC-DC, or other). Move on this later. If the sound still cannot be properly heard, have your tubes checked and try replacing the photoelectric cell with a spare. Sometimes parts on an amplifier break down. Your radio serviceman will be able to replace these. Your photo-supply dealer maintains a service to check anything wrong internally; consult him about your troubles. He will advise you what to do—maybe send the machine back to the factory, or he will be able to refer you to a reliable radio service-man who will be able to help you.

A word about fuses. Fuses are the safety valves of your projector's electri-

cal system. If they blow, something is wrong somewhere. You may have made a misconnection at plugged into the wrong voltage outlet. Most modern 16 mm. sound-projectors have universal AC DC motors, that is, they will operate on either direct or alternating current. However, the amplifier units of these projectors have to have AC or alternating current of the 60-cycle type, unless otherwise specified when ordered.

By the same token, most power companies supply 110-Volt 60-cycle current as standard. Occasionally in small towns 110-Volt, 30-cycle or 50-cycle current is supplied. Also occasionally, such as in hospitals and other institutions that manufacture their own power, 110-Volt DC, or direct current, is supplied.

Amplifiers rated to operate on 110-Volt 60-cycle current will not operate on a rate on either 50 or 50-cycle AC or direct current—or voltages other than that for which they are rated. The result of trying to use your amplifier or projector on other than rated voltage values and types will be a blown fuse—or possibly a burned-out amplifier and motor. Therefore, if you fuse blows when you plug into an electric outlet and turn on the switch, check as to the rating and type voltage supplied to your projection and sound equipment.

It is a very wise idea to contact your power company about the power supplied to various institutions and utility companies that you might have to visit, if you have any doubt in your mind about them. Always carry an extra fuse with you in your equipment. If your second fuse blows after you've ascertained that the cause of the first one blowing was not due to wrong voltage values or a misconnection, do not try to operate your equipment, but see your photo dealer or repair-man about it. Chances are that something is wrong internally.

Whenever you have a showing scheduled, try, if time permits, to have your equipment set up and completely checked through in respect both to the picture on the screen and the volume of the sound before your audience arrives. Load the film into your projector and run off a few feet so that the picture can be properly focused and the sound and tone levels be predetermined.

Some projectors have to warm up thoroughly several minutes before they can be used so that they will run steadily. If they are taken in, set up, and started with the picture immediately without a warm-up period, they will "wow" or waver in tone, and the music, if any, will sound "sour" as it comes from the screen. Then, too, the speech may be abnormally low and slow. Allow time to warm up if your projector happens to do this. Most amplifier tubes also have to be warmed up for half a minute or so before they will transmit sound.

Try to place the loudspeakers of your equipment high and to the side of the screen, so that the sound from it will come to all parts of your audience. If you place the speaker as the floor, the bodies of your audience will absorb a

great deal of the volume, so that you will have to use a volume-setting higher than is really necessary. Never place the speaker behind the screen unless the screen you are using is a specially perforated sound screen. Regular standard screens will cut off all the high-frequency sounds and make the speech muffled and indistinct if the speaker is placed behind it.

If you have the opportunity of selecting the room in which you are to show your films, try and choose a room that is "dead" or will not reverberate and echo sounds. Rooms with flat, hard, bare walls, smoothly finished, are liable to be very "live" and thus give the sound a very boomy effect, making it hard for the audience to understand. In addition there may be dead spots where sound echoes tend to cancel one another out and the volume will appear to be very weak at these points. The converse of this is also true. If you are compelled to show sound-films in a room of this type, set your tone control so that as much bass is removed from the sound as is needed to make the speech clearly understandable.

Quite often what appears to be loud enough volume at the projector, is really too loud for the audience. The sound from the speaker has to compete with the noise from the projector and this sometimes results in the operator setting the volume-control high enough so that he can understand the speech beside the projector. However, the speaker's sound may be too loud for those away from the projector and it thus will become objectionable. You cannot accurately pre-set your volume by listening before your audience is seated, for their bodies will absorb quite a lot of the sound, so that a volume setting which is right for an empty room may be too low for one that is filled with people. Therefore, after your show is started, quietly walk around the back of your audience and check on the volume. The sound should be heard distinctly, but not blurry, let the picture on the screen carry the main interest and the sound supplement it. In addition, loud sounds are more likely to set up objectionable echoes resulting in a distortion of what is heard.

If you have to show your films in a large hall or auditorium, plan to use two speakers. Most amplifiers make provision for the use of additional speakers and you will find that the quality and clearness of the speech will be better if you use two in most of them. One speaker cannot carry much of a load and when forced to do so will distort the sounds and may even cause internal injuries to itself, necessitating expensive repairs.

SUMMARY

In summarizing up the foregoing, certain definite rules might be related as follows:

- 1.—Keep them clean.
- 2.—Begin any broken perforations or splines as soon as possible.
- 3.—Keep your film in dust-proof cans only.

- 1.—Store them in a cool, dry place.
- 2.—Handle them only by the edges, never by the picture area.
- 3.—Never pull the film tight on the reel by hand.
- 4.—Provide a long enough leader (six feet) and test the threading of your projector on it.

Projectors and Amplifiers

- 1.—Keep them clean.
- 2.—Lubricate them according to the manufacturers instructions.
- 3.—Clean the picture gate before each projection.
- 4.—Keep the sound gate and lens clean.
- 5.—Do not attempt to overvolt your projector lamp.
- 6.—Do not try to use a lamp of greater power (Wattage) than specified for your projector.
- 7.—Keep a spare projection lamp, extra lamp and extra fuses with you equipment at all times.
- 8.—Keep a spare photoelectric cell and a spare set of amplifier tubes on hand.
- 9.—Do not try to operate your equipment on the wrong current frequency or voltage.
- 10.—Try to have your equipment completely set up, focused, and checked for sound volume and tone before arrival of your audience.

If you will observe these simple rules, you will do much towards eliminating many embarrassing stoppages or break-downs in your performances. **END**

"Cheating"

Continued from Page 217

display bases, on a good, sturdy plank—about a 1x4 unless you're a very heavy camera—long enough to span the opening of the door. Next, borrow a pair of large C-clamps from your friend whose hobby is woodworking, and use these clamps to hold your board across the opening of the door, at the required height. In some instances it may be a good precaution to add a vertical brace made from a 2x2, running from the floor straight up to your board—nosed at a point just under the camera. It can be nailed, or held in place with a smaller C-clamp. Either way, it is an added safeguard and will give greater rigidity.

As soon my friend interrupted: "That was all very well for most shots," said he, "but how about angles like some of those in your picture 'Freak of the Yankons'?" I remember one sequence where Gary Cooper and Teresa Wright, as Lee Gehrig and his bride, engaged in a friendly little scuffle, wrestling all over the floor and ending up with Mrs. Gehrig pinning her husband's shoulders to the mat. There were some angles there, where we shot past Cooper's head and shoulders, looking upward at Miss Wright, that you couldn't have gotten without dropping the camera into a pit in the floor—and which even an 8mm. amateur couldn't have gotten by the means you suggested."

That was accomplished by "cheating." We put the camera as low as we could get it on a "high hat" surmounted by the regular lifthead. Of course that put the lens two or three feet above floor-level.

So we simply built our action up to the necessary height for our shot. Instead of being actually on the floor, Cooper lay on some planks, supported by stout boxes, which brought his head and shoulders to a point where we could get them in the foreground of our shot. Miss Wright—also on the planks—went through her action, pining his shoulders to the planks, rather than to the floor.

On the screen, the result was exactly the same as though we had put the camera's lens at or below the actual floor-level, and shot the scene that way. It was identical with other shots that showed the couple actually wrestling around on the floor, as the audience accepted this particular cut as showing them still on the floor. But from our point of view, the scene was much easier to stage as we played it. Similar scenes should be just as easy for amateurs who use the same method of "cheating."

I don't recall at the moment whether the composition is that particular shot made it necessary to include in the background portions of any tall furniture, like the cabinet in which Gehrig kept his baseball trophies. If it did, we probably "cheated" with that, too, raising the cabinet to the necessary height by putting blocks under the legs.

This type of "cheating" is carried out every day in the studios. Suppose, for instance, we have a medium close-shot of a man sitting at a desk, and want the desk to figure prominently in the foreground, but yet don't want to drop the camera as low as would ordinarily be necessary for this effect. Well, we simply put the desk on block "lifts" of the desired thickness, and there is our effect, very easily obtained, and without disturbing the perspective on the actor.

In the same way, if we have a player seated in a chair in a scene where he is playing a sequence in fairly close-angle shots with another player, cutting from one to the other in reverse-angles, with the player being spoken to in the foreground or background of each shot, we often raise the chair in which the player is sitting by means of these little "lift" blocks, which of course do not show in the close shots, and which are naturally removed for the long-shots. You can, by the way, study an excellent example of this if you'll look at the cover of the March issue of this magazine.

Remember, too, that in a sequence of this sort one can very frequently play one actor or the other in a position several feet to one side or the other of the position he occupied in the establishing long-shot, if it is necessary for compositional or dramatic reasons.

In fact, the whole subject of "cheating" with camera-angles can be summed up by saying that once you've established a basic relationship between the players and the set in your long-shot,

you can move them about to a quite unobtrusive degree in making the closer angles, for the audience never sees what is outside of the camera's field, and takes it for granted that a relationship or position established in the long-shot angles continues throughout the closer ones. Remember this, and you will find it easy to add a very pleasing variety of camera-angles to your pictures—with much less difficulty than you anticipate! END

Planning Programs

Continued from Page 216

on both screens, and we measured the reflected light with a luminosity meter.

I am telling of this incident because of the interest it created, and the time consumed in the discussion filled in most of the meeting. The members were continually moving about the room, viewing the pictures from all angles and receiving an education about screens and their light-reflecting properties. This should prove an interesting experiment for any other club.

Have you ever discussed the principles of composition? In most movie groups there are some members who are artists or who have had art training. All that is needed is a blackboard and a piece of chalk—and let your artist go to work with simple line drawings. A demonstration of this kind will hold the interest of the whole club. It is very practical and need not be too elaborate to prove its effectiveness. The pointers learned in a simple demonstration of grouping in the form of triangles, rectangles, etc., will help all who see it to select better compositions and angles for their future pictures.

While we are on the subject of composition from an art angle, a follow-up meeting on color would be in order. Color exerts such a strong influence on our daily lives that we dare not overlook this important subject. Picture, if you can, a colorless world, and how drab it would be! The food we eat, the clothes we wear, our immediate surroundings, trees, flowers, sky, water—all that we see—is distinguishable by virtue of its color. Here is food for thought and good material for a lecture—color harmony in its simplified form, how it can be applied to our movie making, what constitutes good color composition and how we may attain more perfect color balance in our films. The simplicity of its use in color film, and a meeting devoted to this especially interesting subject should be a "must" on all movie club programs.

In the past we were often extended the courtesy of lectures by the various manufacturers of light meters. These very educational talks were the incentive which led many of us to purchase these very useful instruments. It would be a splendid idea for some of the members who have these various makes and styles of meters to get together and plan a discussion. Here is a piece of movie-making equipment with which the

user develops his own taste of handling. There is nothing mysterious about this, neither can it be said that one person has more ability than another. Some photographers are able to achieve better results, however, than others. Surely the experience of the various members in the use of their own pet meters would be valuable to the club as a whole. The more we talk about our hobby, the more proficient we become. Don't hide your light (meter) under a bushel. Bring it to the fore in a helpful discussion.

Did it ever occur to you that each time a contest is held, many very fine films are shown and that we very seldom see them afterwards? Why not have a revival of these prize-winning pictures? These who were unable to be present at the various contests would most then welcome the opportunity of seeing these splendid films. Those who have seen them would hardly be averse to seeing them again, for all of us can bring to mind some beautiful picture we have seen in the past and hope that it might be shown again. Why not a contest to select the best of the contest films of yesterday?

I have heard remarks, while pictures were being shown, that this or that shot was made by a telephoto lens. "You can usually pick them out for they seem to be overexposed," some folks say—and are often proved wrong. No matter which lens is used, there should be no difference in the quality of the picture.

Here is another subject which can be discussed for the enlightenment of our club members. Why not ascertain the different types of lenses there are in the possession of your members? Have them displayed on a table for all to see and examine. There are members in all clubs who are well experienced in the

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use of all kinds of lenses and who could talk intelligently on the subject.

I think that a vivid illustration of the result of these various objectives could be easily shown by projecting a still picture on the screen. Mask off areas indicating the use of various lenses. This can be accomplished by cut-out masks placed in front of the projection lens. By simply moving the projector farther back and filling the screen with each masked area, the startling results of the use of each lens is quickly and dramatically brought to the screen. In this manner, the lecturer could illustrate the use of each lens as he talks about it. The possibilities of developing this into a full and interesting meeting need no further explanation.

The foregoing is a suggestion of what can be done in your own club. A little thought and planning may turn any number of movie-making problems into material for a club meeting. By all means keep up the activities of your

club. Create enthusiasm by member-participation. Why search further when you have "acres of diamonds" in your own back yard? END

Shooting in New Guinea

Continued from Page 227

the water was so hot it was impossible to do anything with it.

"Water was brought overland 40 miles through a steel pipe. The hot sun beating down on that pipe was better than an electric heater, and a shower would literally cook a person.

"Drinking water was obtained by sinking a large metal container (about the size of a large garbage can) in deep holes in the ground and covering it over. In two or three days the water was quite cool and pleasant to drink.

"The water in the pipe began to cool off after dark, and about two or three A.M. the boys would roll out for a shower.

"At best the temperature was never much less than 80°, and as about 70° is the maximum for safe negative development, I didn't process. There was no ice-machine available, or I would have tried using ice to cool the water. The ice machine in use could hardly make enough ice for the hospital.

"For three and one-half months I had no idea how my pictures were coming out. I didn't know how my film was holding up (it was not tropical pack), or if my cameras were in adjustment.

"I would wrap up the day's take, and look for a place bound for GHQ in Australia. There the film was inspected and re-wrapped for shipment to Washington, D.C., where the film was developed.

"Finally, I was able to make a test. I located a makeshift darkroom, in a basement, and was able to prove, to my great satisfaction, that my pictures were coming out all right.

"When I left the States, I took along a 4x5 Bolex Graphic with a 3½-in. f-4.5 lens (the leather cover went bad, but the bellows stood up O.K.) I also had a Bellows with an f/3.5 lens, and a Leica with 5-cm. lens. For all around work I found this equipment very satisfactory.

"I also took along three cameras—30 mm. in the camera of 35mm cut film, 15mm.

man) and 40 mm. of No. 120 rollfilm (all Eastman Super-XX). Two dozen film packs—12 exposures in each pack—and 6 rolls of 35mm film. All this film was regular pack. I had no tropical pack until six weeks before I left the South Seas."

"Frank told of one unusual experience in New Guinea with a roll of Super-XX roll film. He had exposed the film and placed it in a canvas duffle-bag which was accidentally dumped in the water where a stream emptied into the Pacific Ocean. He made a quick dive to secure his precious bag . . . and was told later that particular stream was infested with crocodiles! Back at base camp in Port Moresby, Frank decided to develop the film, just for fun. He was sure it had been ruined by the salt water, but to his surprise all twelve negatives were in excellent condition.

"When I arrived at Port Moresby, our base camp on New Guinea, the working conditions were somewhat better than they were at Derwin. All crobbins had been evacuated, and we had the best house in town for our quarters. Rain-water was collected in a huge vat for paged to the house. There I was able to do some processing.

"Then one fine day the Signal Corps set up portable darkroom equipment, and an ice-making machine to keep the solutions cool, and I had no more trouble processing my negatives.

"I sent out my negatives wherever possible. Sometimes I had only two or three ready. Other times I sent out as many as 200."

"In the jungle I shot most of my pictures at 1/25 to 1/10 of a second wide open. All the pictures I shot at Port Moresby were made with K-2 filter. This was possible because there were fewer trees than in the jungle country, and the air was drier. In the jungle it was not feasible to use filter because they fogged over. Sometimes in aerial shots (when shooting from a plane) I used a dark red filter to cut through the haze and boost the contrast.

"The extreme humidity created the worst problem. I had the most trouble with the film-packs. The safety paper between the films would perspire, causing the films and paper to stick together. I also had a great deal of trouble with cut film. Because of the moisture in the air, perspiration does not evaporate, and as a result one's hands are always damp. The closed space in the changing bag makes the hands perspire more than ever, and is working with the film damp hands leave finger-prints.

"The main problem with light was not due to the light itself, but from the lens fogging over, because of the humidity. It was difficult getting good pictures in the jungle, but that was due to a deficiency of light, not a deficiency of the film. If you can imagine going out to take pictures in a tunnel without flash-balls, you can visualize the problem of shooting pictures in the jungle. We were unable to use flash-balls because that would advise the



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ings of our position. Then, too, there was a question of weight. One travels very light in the jungle. On account of the hard going, every intentional ounce of weight and every inch of bulk has to be eliminated.

"I soon learned how to make the best use of my equipment under the conditions down there. The Speed Graphic was good for layouts and pictures. I could plan at least slightly in advance. The Leica came in handy for shooting banking planes, and other long distance shots, and on the actual fighting front I used the Rolleiwood most of the time.

"This camera gave excellent service for a number of reasons. It was small in weight, easy to carry and handle, and valuable when it was necessary to make a number of quick pictures before taking time out to change films. The Rolleiwood can also be used as an aerial camera by closing the Reflex hood and using the frame viewfinder.

"I didn't spend much time sitting around base camp, but exercised my prerogative as a war correspondent to move from camp to camp, meeting the men, and making pictures of their activities. When you do this you really learn what is meant by 'being under field conditions'.

"To make a bed in the jungle, for instance, you cut a couple of six-inch poles, then lay branches and twigs across them to keep you off the soggy ground. With half a shelter tent strung above, you achieve a slight protection from the rains, but this isn't good enough for your camera. The best way I found to protect my equipment in such a situation, was to wrap it in my rain coat, and suspend the bundle by rope from a tree. That kept it a good deal drier than I usually was!

"When the Japanese, last fall, pushed to within 35 airline miles of Port Moresby, we all waited impatiently for marching orders. There was plenty to do around the port, which was teeming with activity. Supplies had to be unloaded and distributed. Our men had to be trained to adapt themselves to the mountain jungle conditions they were so soon to meet.

"The natives of New Guinea helped greatly; unloading supplies, etc. Most of the native women, and children had been evacuated inland, but there were a few around Port Moresby. The natives lived in a little village or stalls at the

water's edge, just outside of the town.

"The women were mostly remarkable for their lack of clothes. They wear an unattractive, bulky grass skirt, and many of them are tattooed. The men go in for sarongs, and fancy hair ornaments of flowers, or shell and bone. For static occasions they dash themselves in fancy patterns with some sort of sticky yellow substance.

"They do themselves up in this swanky manner to greet new arrivals. . . but these same sport-model dandies were very useful in leading our men through the jungles.

"Getting lost in the jungle is very simple. Just step off the trail, and it is accomplished. One day I was twenty feet from the trail and hopelessly lost.

"Tap air roads were a daily occurrence. On land the Australians were driving them back and over the mountains. Meanwhile, our U. S. Engineers were building roads through the jungle to our jumping-off place. Many of our Engineers are Negroes, and I often marvelled over their good humor and ready courtesy. Cutting jeep trails through the virgin jungle is extremely hard work, and the workers were constantly beset by mosquitoes, flies, ants and other insects, as well as having to contend with incessant rains and oppressive heat, but these Negro boys sang and laughed, and kidded the jungle in a way that was truly admirable. They were always ready to stop, and help with heavy loads, free a beagued jeep, or help in any way required of them.

"Finally we received our marching orders, and at the jumping-off place we had to struggle with the jungle in a head-to-head battle that was no small thing in itself. The jungle is a shrew, dark dark-green hell of it's own without the menace of the Nips. Every foot of the way had to be hacked out on our overland trip to the front.

"The Fuzie-Wuzzies were a great help. Some of them showed great bravery, and were dependable guides and leaders. Many of our soldiers who made that first trek across the island from Port Moresby to Buna were saved from probable death when the natives took over their heavy packs during the worst of the trip. More than once when I thought I could not take another step, a native would trot up and take my camera and hold pack into camp.

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agitation, and a single smoke, or sandy bar in considered sufficient reward for very considerable services.

"That first trip to the forest was something to remember. Men hatched and chopped through the misted vines and heavy underbrush. Sometimes we struggled through thick, sharp Kusa grass, seven or eight feet high, which dangerously stings the face and hands. We pushed through dangerous, foul-smelling swamps, and crossed crocodile-infested rivers. A mile in two hours was making good time. At the start, we were given 15 minute rest periods out of every 60. That was soon changed to 10 minutes' rest out of every 30, and that still wasn't enough.

"On the last advance up coast, our contingent got lost in the jungle. We forded one river fifteen times, and the going was extraordinarily tough. We were down to 'C' rations, and they eventually gave out. Finally we solved our problem by following the river down to the sea. At a small cove we found another unit who gave us our first rest in three days.

"We were now close to Buna. We had broken the jungle, and were ready for the Japs. So far, our advance had not been deterred by the enemy.

"At the advance post we were greeted festively by the Fenne-Wumies who had donned their best yellow paint to greet us. Chanting happily, they helped us stack and cover supplies.

"I made a quick trip back to Port Moresby by plane to process my pictures and get them under way then I flew back to the front in a plane that was hauling badly needed supplies. Heavy winds tumbled the storm clouds which obliterated the Owen Stanley Mountains. After several attempts, the pilot decided to 'blind' fly it. That was quite a moment! We hit raging winds over the ridge, but we made it and wound up in a little place only a few miles from the front lines. We were advanced to within two miles of Buna. The jungle hid us, fortunately, for we were not far from the main body of Japanese troops.

"Our bombers were giving the Japs a heavy pounding to 'soften' them up before the final drive for Buna. The Australians joined our air attack, and I saw plenty of Zeros crash into the sea. Only a few minutes later the Japs drew blood at our position. Time after

time the Zeros circled low, firing at our men. By that time we were all pretty good at digging slit trenches.

"One morning the Japs gave us our worst bombing. They came in from the sea, 35 strong, circled our position, then cut again to sweep down to sea level where they could reach our position under the trees, then the bombing began.

"They would circle low, and we would get a rain of machine-gun bullets. I was flattened in a slit trench. Bombs burst closer and closer. My back was covered with dirt, sand and mud. Finally, a bomb exploded near enough to throw me completely out of my slit trench.

"We dug our trenches, 'New Guinea Coffins,' we called them, with our men, kits and helmets. I have seen our boys lie in them for 24 hours at a stretch, unable to smoke, soaked with mud and rain, just waiting for a chance to advance.

"After our successful battle for Buna I came back to the States on leave. I'll be shipping out again soon. Where? I won't know that until I'm on my way."

To anyone who expects to be shooting pictures in the South Pacific area, Frank suggests taking the same equipment he carried.

The Speed Graphic and supplies should be left at base camp, for pictures that can be planned in advance. For active work at the front, take the Rolleiflex with its regular f-3.5 lens and the Leica with a 6-cm. lens. And be sure and take along lots of Kodak film—tropical pack preferred.

When asked about the problems confronting a motion picture cameraman, Frank told this little story.

"A motion picture photographer for March of Time (an Englishman) had just finished shooting a planned picture—a short on the activities of pilots on the field—when we got a real alert. When the fellow realized that the real thing was going on, he made for the top of a hill to take pictures of the bombing. He reached the top of the hill in time to get some good pictures but realized he was out of film when he started shooting. By the time he re-loaded all the bombs had been dropped!

Had he obtained the pictures, they would have been among the most spectacular of any bombing in Port Moresby."

It seems that the German camera is too large and difficult to handle, and it is almost impossible to carry an adequate amount of film.

"I traveled at the front with Martin Bennett, of Paramount News, and I saw some of the problems he had to contend with regarding movies. He carried a Zeiss, Kypres camera. I believe his lenses were a 2-cm. and a 6-cm. focal length, and he would take along about 2,000 feet of 35mm negative. But while actually shooting at the fighting front he could take along only four or five hundred feet.

"Now if he had been equipped with

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Professional and Amateur

35mm, his camera-outfit would have been rather less than half as big and half as light. With the lighter and more compact 16mm film, he could have carried enough footage to give him five times the screen time of the belated 35mm stock he carried—say enough to give him the equivalent in screen time of 1500 to 2500 feet of 35mm. And of course using Kodachrome he could have gotten 35mm enlargements that would compare very favorably with anything he could shoot with 35mm under field conditions. In a word, he could go farther from his base, and stay longer, and bring back much more in actual picture using 16mm than could be possible with 35mm.

"And I think that both the official war films and the commercial short-subjects made in 16mm Kodachrome and released in 35mm, blow-ups, whether black and white or Technicolor, have pretty well proved that 16mm is just as good as the man behind the camera. In the hands of a capable, well-headed professional like the newsreel crowd and the A.S.C. members who are now in the military and naval photographic services, 16mm can pay big dividends when compared to 35mm, for front-line camerawork."

Summarizing what his experience in New Guinea had taught him, Frank reiterated this important advice: "Take the best possible care of all equipment! Remember that new equipment is not easily obtained—especially if you're 6,000 miles from your home office—and if you want to keep on making pictures, you've got to 'make do' with the outfit you start out with."

"Lightweight equipment is essential! When you get out to the real front, you'll have to carry it yourself. That's had enough in itself when the going gets tough—but it's a thousand times worse when you have to dodge bullets too. Compact, lightweight equipment is a good deal easier to protect, too, when weather

conditions get bad, as they always do at the front. And—remember that a man trying to use a big camera of any kind in the field makes a lot bigger target than the same man using a smaller, lighter camera!" END

At the Front

Continued from Page 208

regularly every three days, including war news shots. Aeroplanes, trains and dusty black-colored bullet-punctured front line lorries daily deliver to the Central Newsreel Studio in Moscow their tons of films. One winter morning a car containing tons of film drove up as usual to the Central Studio. Inside the vehicle lay the dead body of our colleague, cameraman Pavlov. He had been filming the Red Army taking a town in the front line and had been killed by shrapnel. At the precise moment at which this heroic cameraman was being buried, the studio was running the sound track for its next newsreel issue, which showed the actual scenes of our troops retaking Makh-Yaroslavets, the very same battle in which Pavlov had met his death.

"The war of the Soviet people against Hitler's hordes knows many instances of valiance, heroism and valor. It would be difficult today to say where Soviet newsreelmen could not be found filming this war throughout the vast expanse of the front stretching from the Black Sea to the Arctic Ocean."

"These cameramen stand in waist-phones and their cameras travel deep into the enemy's rear where Soviet air craft hurl their cargo of bombs; they descend deep underwater aboard Soviet submarines; they will always be found at their posts in infantry units even in the most strenuous moments of enemy charges; they film guerrilla action far behind the enemy's lines. The cameraman often becomes the Red Army man, lying aside his camera and taking up a machine-gun or tommy-gun."

"I should very much like to bet you, my friends, cameramen of Great Britain and America, that we shall meet you working and fighting hand in hand with us when the Second Front is at last opened."

"Then, firmly gripping each other in a handshake, in close creative co-operation, we shall film the final shots and make the great historic film of the decisive battle and victory of freedom-loving, progressive mankind." END

Outdoor Camerawork

Continued from Page 207

be less increase in both visual and lighting controls in the days or enlargements."

In Kodachrome, too, there's very little to be done in filtering, with the exception of the filters made in correct Type A Kodachrome for exterior use, and occasionally to penetrate haze in extreme long-shots. In the first in-

stance, you've simply got to use a filter. In the second, you can use either the Kodak "Kodachrome Blue Filter" or—and I think this is better—a Pola-Screen. The Haze-filter frequently tends to distort color-rendition in the distance. The Pola-Screen gets through distant haze just as well, and has the advantage of keeping the background color-rendition unaffected. For that matter, I've found the Pola-Screen useful at times in 16mm black-and-white, not only to eliminate unwanted glare or reflections, but also to "pull down" the sky without affecting the color-rendition elsewhere. So if you feel you simply must go into action armed with at least one filter, I'd recommend making that one a Pola-Screen, and forgetting the rest. END.

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Max Fabian

(Continued from Page 218)

miniature battlefield for a relatively unimportant little program picture being directed by King Vidor and photographed by John Arnold, A.S.C. . . . it was called "The Big Parade."

As he tells it now, 'That assignment was something of a surprise to me, I had never photographed a minister before, and I'll confess I wasn't at all sure I knew how to go about it.' But somehow I managed to get the shot filmed, and everyone was very surprisingly pleased with my efforts. So I kept on doing miniatures, which were then just beginning to come into general use.

"Oh, in between, I'd do a production now and then—went over to Fox for some of them—but all the time Metro kept calling me back to do more radio tunes. So finally I just stuck to it . . . and they've kept me busy at it ever since."

"I'm not sorry, either. Once you get into it, there's a strange fascination about making miniature look real on the screen. Besides, now that production paperwork has become more complicated and more time-consuming, I figure I get out of a lot of headaches letting the other boys handle the production work."

"As we work it out here at MGM, I have a pretty free hand. I work in friendly, cooperative fashion with the directors and art directors of the furniture department, but in the actual shooting, I'm pretty much on my own. They may provide the set, and indicate how they want the action played, but it's my 'know how' that puts the shot on the screen. And I'm got always harried—as production men are—by art managers urging me to hurry and get the overhead over with. Several times recently I've turned down chances to take a fling at production camerawork. The quiet control to be the biggest photographer from a hot oven really appeals."

"Basically, I like narrative work. Every shot is different, and has its own challenging problems. Sometimes, my managers are not for a big picture, and I have weeks of time and a six-figure budget to do them with, so that I can use large-scale, three-dimensional miniatures, and take my time getting the best possible results. At other times, usually for less important shots or pictures, I have to work comparatively fast, and use the kind of miniature that you see in the cut-outs, and play around with lighting, perspective and camera-speeds to create the illusion I'm after."

"But don't look down on cut-rate used

because they're simple and comparatively cheap. Those 'Maurice' moments were cut-outs, and so, I understand, were the shots of the Jap fleet in 'Wake Island.' But if you can make them look real, it doesn't matter what they may actually be.

That's the big thing about shooting miniatures or any other kind of special-effects shot; make it look real. Once you've done that, bend every effort to making your composition and lighting artistic. And with that combination, you've the whole sum and substance of successful miniature work.

"In all of it, none of us today are trying to fool the public. Instead, we're trying to put on the screen something necessary to the story, but which can't be done by conventional, straightforward methods. If the average audience doesn't notice our work as such, we can feel we've really succeeded." END

New Aircraft Identification Kit

A very complete new kit of EME aircraft identification schematics in 2"x3" miniature slides, recently prepared by "Flying" magazine is now being distributed exclusively through the Society for Visual Education, Inc. The kit has been tested with excellent results in approximately 150 aircraft identification classes in high schools, colleges, and among various units of the Armed Forces.

Material for this kit was prepared by a highly specialized staff of experts and a specially designed for group instruction. It includes 110 different types of aircraft used by the world's major air powers. Each type of aircraft is completely identified with three individual slides on separate slides, which show side, bottom, and front views. In addition, there are six introductory slides, showing front and bottom views of various wing types.

The kit includes an indexed overlay, and an instructor's manual. Each slide is accurately keyed to the starter index on the cover of the case, which lists the guide number and type of aircraft. The instructor's manual includes an alphabetical index of aircraft types and provides suggestions concerning the proper use of the slides. The standard kit is available at \$35.00 in cardboard. Eisenhower and a De Luxe Kit, with slideshows mounted between glass or S-YE Slide Binders, will sell at \$55.00.

Some results of supplementary slides will be made available by the Society for Visual Education, Inc., as rapidly as the staff of "Flight" magazine may secure detailed information concerning new types of military aircraft and propose new drawings. It is also likely much of this same material, including the original kit, will be made available on slides. Thus, for the benefit of those who do not have projectors for monitors slides. Complete information covering the new and effective training aids may be secured from the Society for Visual Education, Inc., 100 East Ohio Street, Chicago, upon request.

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Not very important	Not very important	Not very important
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Year	Number of cases	Number of deaths	Number of cases per 100,000 population
1990	1,000	100	1.0
1991	1,000	100	1.0
1992	1,000	100	1.0
1993	1,000	100	1.0
1994	1,000	100	1.0
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2012	1,000	100	1.0
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2015	1,000	100	1.0
2016	1,000	100	1.0
2017	1,000	100	1.0
2018	1,000	100	1.0
2019	1,000	100	1.0
2020	1,000	100	1.0

DOI: 10.1002/for

1. A 40-year-old female with a 10-year history of rheumatoid arthritis (RA) presents with a 2-week history of low-grade fever, weight loss, and fatigue. She reports that her RA is well-controlled on low-dose prednisone (5 mg daily). Physical examination reveals bilateral hilar lymphadenopathy and a small, well-defined nodule in the right upper lung field. Laboratory studies show an elevated erythrocyte sedimentation rate (ESR) of 45 mm/h and a positive rheumatoid factor. A chest CT scan shows bilateral hilar lymphadenopathy and a small, well-defined nodule in the right upper lung field. A biopsy of the nodule shows granulomatous inflammation with caseation. What is the most likely diagnosis?

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